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ABSTRACT

This bulletin, which focuses on the role of physical education in the development of children, contains 12 articles. The topics of the articles include a) movement, b) characteristics and examples of good physical education programs, c) safety education, and d) the learning environment. The booklet also includes a selected bibliography on elementary school physical education and a list of selected films and journal articles. (HMD)

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PHYSICAL EDUCATION

FOR CHILDREN'S HEALTHFUL LIVING

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THE ROLE OF PHYSICAL EDUCATION IN CHILD DEVELOPMENT AND LEARNING*

Gone are the days when an overworked teacher could put the children out to pasture with a ball and call the resultant activity "physical education." Gone are the days when "free play" was a sanctioned period when the teacher sat on a bench and restored her nervous system to equilibrium. Present are the days when physical education is no longer a respite *from* but an opportunity *for* learning. Physical education now has meaning as a sequence of skills, attitudes and knowledge prescribed for the learner so he may achieve essential movement and other related objectives deemed appropriate for him by rigorous, sophisticated physical educationists.

Three Theories in One: Movement, Curriculum, Learning

The gap between theory and practice in physical education—what we know and what we do—remains large, but the contributions from movement theory, curriculum theory and learning theory can rapidly close that gap. Movement theory identifies the content to be mastered. Curriculum theory helps organize that content for learning. Learning theory suggests economical and effective ways of achieving movement objectives. Each of the three components of a valid physical education program complements and supplements the others.

* Speech presented at opening session of Southwest District Leadership Clinic in Elementary School Physical Education, Phoenix, Arizona, January 10, 1968.

Movement Theory

It is essential to emphasize the importance of current knowledge of the elements space, time, force and flow as they are organized in movement theory. Most behavior is movement of one kind or another; consequently, learning usually has movement as its foundation. Through movement the young child learns the difference between the "me" and the "not-me" that is essential to the ability to integrate form. Form perception, or his ability to assign meaning to that form, is based on his posture, laterality (map of inner space) and directionality (map of outer space). His space perception or awareness of the relationships between forms is even more obviously developed by movement. His motor behavior is the primary channel through which cognitive and affective behavior are evident to others. Thus motor behavior provides the observable evidence of learning.

In these days when a great deal is heard about a child's readiness to learn, it is important to stress that readiness is not only preparedness to learn but is also the result of learning and consequently can be taught. For example, reading readiness is a complex cluster of more basic abilities, many of them grounded in movement such as the ability to locate objects in space, track a line of type from left to right, and perform the transformation between space and time as words in space are transformed into sounds in time. All of this "readiness" is the result of appropriate experience in movement. If deficient, this readiness is responsive to remediation by movement education. Once the teacher accepts the fact that readiness is learned, there is no longer the danger of falling into the trap of "give them more time and it will happen" or "send them home until they are ready," which has ensnarled or crippled so many in education. It is better to give the additional time at home to those who are "ready," for it is obvious that whatever these pupils have done at home has been productive. Equally obvious is the fact that the "unready" should spend no more time at home on that which has demonstrably produced poor results, but that they need the teacher's intervention at school to teach the movement and other learning that will "get them ready."

Need for Understanding Subskills

In considering movement learning, it is to the theorists that the educator looks for analysis of locomotor, nonlocomotor and manipulative skills and to explain components of such complex movements as skipping, twisting, and catching a ball. One must know the sequence of subskills that are essential to the accomplishment of a more complex skill. For example, catching is a more difficult task than throwing because it involves making perceptual judgments as a ball is visually tracked as well as motor judgments to get the body in the proper position in space and time, plus closing the hands correctly at the appro-

priate second. Consequently, rolling a ball on the ground to a child who is learning to catch reduces space to two rather than the three dimensions he must monitor if the ball is coming through the air. Also there has been eliminated the difficult problem of positioning his body in space. In like manner the ability to deal in movement with the unseen space behind him is an essential sublearning to running backwards or moving flexibly in all directions.

Organizing Learning Opportunities

Knowledge of curriculum theory is essential in organizing the content of movement into learning opportunities for children, so that an orderly, sequential and more predictably successful program may be developed. In this area Simpson's Taxonomy of the Psycho Motor Domain (9) and the Gutteridge Rating Scale of Motor Skills (3) have supplied productive information.

In making plans for teaching it is necessary *first* to provide for the learner's perception of the movement task. Are the sensory stimuli actually being received and assigned significance or are they being ignored or rejected? From the universe of stimuli impinging on his consciousness, is the learner selecting out the appropriate cues, such as the position of the ball and the thrower's feet or has he focused on the thrower's face or a bird in a nearby tree? Has he engaged in the mental process of translating these perceptions into movement? Only if these three aspects of psychomotor perception are in process can it be said that the learner has perceived the movement task.

The *second* concern is with the learner's set, or predisposition, to act. Is he physically, intellectually and emotionally willing and prepared to attempt the movement task?

Third, there must be opportunity for guided response, an overt response that may be imitative, trial and error, or done with verbal or physical guidance of the teacher or another child.

Only after these three steps have been successfully completed can a movement skill become a usable and habitual part of the learner's movement repertoire.

Finally, after the four preceding responses, the learner achieves the complex overt movement response where all uncertainty has been resolved and his performance is automatically elicited in any situation where it is appropriate. It is interesting to note that usually the focus is only on this terminal level of competence and there is emphasis upon such complex skills as racing, ball playing, tumbling and swimming rather than an examination of the full spectrum at all five levels of the taxonomy which are necessary to achievement of such an automatic skill. Academic tasks of varying difficulties are assigned to children in a classroom; yet it remains acceptable that they all engage in the same movement task in the physical education period. As a result, there is far

too often a boy standing on the sideline and a teacher who insists that he "get in the game" in the hope that he will develop ball-playing skills. Who would make this same pedagogical error of placing an unable reader in a research library hoping he would learn to read?

Movement Tasks Must Differ

The current trend for individualizing instruction is pointing out the very serious error of the classroom practice where it is assumed that the same movement task is appropriate for all learners in a group. Contemporary theory mandates differentiating learning tasks on the basis of a diagnosis of each student's position in the sequence of learning. School organization for instruction must change; one or two balls for one classroom is no longer defensible. We would have all children learn.

Current curriculum theory implies a greater demand that precision be built into instruction by specifying in behavioral terms the instructional objective. "Enjoying team games" or "learning motor skills" will no longer suffice as the educational destination in a physical education program. Such global (and therefore unassessable) objectives must be replaced by precise and specific objectives expressed in behavioral terms (8). "Catching a large ball when it is thrown with moderate force to a position between his waist and shoulders" or "catching eight out of ten softballs thrown from any direction to his general position" tells the instructor the type of learning opportunity to plan and whether or not the objective has been achieved.

Learning Theory: How Objectives Are Accomplished

As movement theory provides content to be mastered and curriculum theory gives directions toward attaining clearly specified objectives, so learning theory is to be considered as that which enables the teacher to accomplish those objectives. Here again critically needed but currently little-used knowledge is now available. Psychological theory is rapidly being translated into language intelligible to, and thus usable by, teachers. In motivation (4) theory have been identified the six variables manipulable by a teacher so that a student will more earnestly engage in learning movement skills. Factors that will increase the speed and degree to which he learns a skill have also been identified. As a result, a teacher may make valid and productive decisions of how much to practice and for how long a time; what to reinforce (5) and what to extinguish, which sensory modalities will yield the greatest input. These are only three of the many factors identified as important to increasing the rate and degree of learning. Retention theory (6) has specified the five factors with which a teacher must be concerned to minimize the "fall out" of forgetting; transfer theory guides the teacher in planning learning so that it is available to the child and used in all situations where it is appropriate. It is incumbent upon the physical educationist

to become so conversant with this psychological knowledge that he too may resolve uncertainty and achieve the skill of automated valid performance in his teaching.

The current trend to move physical education from an activity whose purpose was to drain off fatigue from other learnings to a period for learning of the utmost importance is long overdue. However, still undiscovered by many who are designing education for the twenty-first century is the certain knowledge that the learner will retain his own mind and body though all else in his environment may change. Physical educationists are in the unique position of knowing that movement education, which includes the knowledge of the use of the learner's body, is sure to be necessary to the learner twenty or fifty years hence. In the art of movement is to be found the common denominator of all human expression, a foundation for learning and a release from the damaging inner tensions so pernicious in our society.

With this new prominence assigned to movement education comes the responsibility for designing and executing physical education programs in which are incorporated present knowledge in movement, curriculum and learning.

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WHAT EVERY CHILD NEEDS FROM PHYSICAL EDUCATION

The needs of today's child are no different from those of yesteryear. The emphasis may be somewhat different, but children's fundamental needs remain basically the same. However, never before in history has it been so important for us to seek effective ways to meet these needs of our children.

What Are the Needs?

Some of the more obvious needs that contribute to healthy personalities are:

Success (achievement, accomplishment, adequacy)
Activity (doing, participation)
Approval (attention, appreciation, affection, recognition, worth)
Belonging (being wanted, group status)
Cognition (thinking, learning)
Creativity (new experiences, novelty, variety)
Excitement (adventure, fun)

The fulfillment of these basic needs is the birthright of every child.

Does Physical Education Contribute?

Much has been written about how physical education can contribute to the fulfillment of children's needs. This literature is sound and well thought through, but as is so often the case what we profess is far ahead of what we practice. Nowhere in elementary education is this "educational lag" more evident than in elementary school physical education.

The question is: is physical education part of the solution or part of the problem in meeting the needs of *all* children? Children are in the

best position to answer this question. A ten-year-old girl expressed her feelings about physical education in this way:

I hate to go to gym, I do
Tho' I like soccer and baseball too;
But the kids are unkind just the same,
That's what I don't like about the game.
When I do something wrong they "boo,"
And I have done it wrong, 'tis true;
But if they wouldn't boo at me,
Why I'd a better player be.
I'm shaky for fear they will "boo,"
And I'm terribly nervous too,
When I missed the ball the other team won
That is why gym is no fun.

My contention is that physical education as it is currently being conducted in many schools is part of the problem rather than the solution. In fact, it creates situations such as the one just described that force many children into unhealthy emotional states and negative patterns of behavior. For some children the experience causes an inadequate self-image and contributes to a state of poor mental health.

Failures in Practice

Physical education programs fail to provide success experiences for many boys and girls. When a child is eliminated from an activity or strikes out because of inadequate motor skills, he is undergoing a failure experience over which he has no control. Those children eliminated need the activity most. Elimination activities cannot be considered good educational practice.

In practice the programs are almost always geared to the gifted. The highly skilled children usually dominate and monopolize the learning activities to the detriment of the less skilled. As a result the skilled become more skilled and the less skilled fall farther behind.

There is a direct relationship between the amount of activity a child gets and the benefit he receives from the activity. Daily vigorous physical activity is not being experienced by many boys and girls. If we were to do a time-motion study, it would be found that for most children the major portion of the physical education period could be described as a standing, watching, waiting period. Many games involve only a runner and a chaser while the remainder of the class stand idly by, anxiously hoping and waiting for a turn that for some fails to come. Other games, whose purpose is to develop ball skills, utilize but one ball for an entire class, which is analogous to teaching writing with one pencil to a class of 30 children.

Unrealistic pressures and anxieties in children have been evidenced as increased emphasis on formalized physical fitness testing is stressed.

The test results should be checked against the child's individual improvement, not against a national norm as is the common practice.

The need to belong, to be part of the group, is not met when teachers allow children to select teams in front of classes with little or no consideration given to those children selected last or not at all. This practice builds up anxiety, alienation, and fear within the child and should not happen under any circumstances.

Few teachers have capitalized on the relationship of motor development to learning. Physical education experiences have been "apart from" rather than "a part of" the rest of the curriculum. It is becoming increasingly clear that physical activities hold one of the keys to learning. The way much physical education is taught fails to encourage thinking; in fact, it actually discourages it. The child is treated like an automaton with commands and directions given to him that elicit little or no creative thinking. The autocratic, formal, militaristic response-to-command approach encourages stereotyped, automatic responses from children that are not in keeping with education in a democratic society.

Children need opportunity to create, adapt, and modify game and play experiences. Many programs are so limited in scope they provide little opportunity for a child to be creative. Kickball and dodgeball are played week after week and year after year with little or no thought of variety.

Positive Interventions

The failures in practice present a rather pessimistic picture when presented by themselves. However, much that is being done is commendable and praiseworthy, but we cannot afford to be Pollyannas in our thinking. Some positive interventions are needed if we are to reduce this educational lag.

The daily physical education period needs to be instructional. This is not a supervisory but a teaching period. Some have the erroneous assumption that by playing the game, motor skills will somehow be mysteriously developed and perfected. This is just not the case. Many children learn in spite of us, but many others need direct instruction. Skills need to be broken down into their component parts and presented in a logical, progressive manner, a sequential order that cannot be left to chance if it is to be a learning experience for every boy and girl.

There should be individualization of program rather than setting one standard and expecting every boy and girl to achieve, without regard to their levels of skill or ability. A mass-oriented approach will not work if we expect to meet the needs of every child.

Planning and organizational approaches that ensure maximum participation must be employed if the real values of this learning experience are to be realized by all children. There should be enough balls, jump

Bill Anderson, photographer, New York City

ropes and other equipment to keep all the children active. These are the pencil, paper and books of this learning experience.

There should be more use of student helpers, children helping other children, both within a grade level and across grade levels. Older children assisting teachers with younger children is a real learning experience for all involved.

The use of the discovery or problem-solving approach to teaching physical education is one of the most exciting and promising developments in elementary education today, a methodology that is generally referred to as *movement education* or *exploration*. This method, which can best be described as "success oriented," in addition, is by its very nature individualized, providing maximum participation and activity, stimulating thinking and creativity. Furthermore, it is fun. Movement education is described in more detail in the article following this.

Fulfilled Needs

The fulfilled needs of a child are associated with happiness, peace of mind, and socially effective functioning, whereas failure in this area tends to be associated with poor mental health, unhappiness, and socially unacceptable behavior. When basic human needs are not met in a positive way, children find less desirable ways for fulfillment. If physical education is to be an effective force we need to look critically at our programs and make the necessary interventions in satisfying the needs of every child.

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MOVEMENT— AN ESSENTIAL IN A GOOD SCHOOL DAY

Each day in school is special. In any school it is possible for children to have enthusiastic, vital and meaningful learnings. Learnings may occur in a school in the inner city, in a plush suburban community or in a remote rural area. The children may come from impoverished homes or from affluent homes. The teacher teaches on the assumption that every day can make a difference for every child in school. Location of the school or family income are not necessarily crucial factors, but the quality of relationships and meaningfulness of experience may be. The opportunity for movement, for physical education, may make it possible for each child's day to be special.

In this era when many are preoccupied with educational concerns—new organizational patterns, materials, and activities—physical education emerges as a need requiring major national attention.

For a long time researchers have been directing attention to the relationship of health to learning. Significant findings have increased appreciation of the many health factors related to a child's progress and learning; there is also increased appreciation of the relationship of activity, participation and involvement to mental health and growth. In the studies of recent years wherein children's creative development has been stressed, many are concerned with the early years in school; there are new understandings and appreciations for the dynamics of

nursery school and kindergarten education. It now seems especially fitting that we hypothesize that many of our purposes can be achieved with greater efficiency as we place new value on the power of movement in education and as we recognize the multiple purposes to which movement can contribute.

Children should have opportunities daily for a variety of movement experiences (physical education activities). Each day should be planned, in part, around meaningful movement experiences. This is not merely to "blow off steam," "to change the pace," "to give the teacher relief," "to play games," or to "balance the day." There are deeper, more specific factors underlying the importance of movement in the elementary school curriculum.

Potential Values in Physical Education

Of the values of physical education in the elementary school program the following should be included. Movement experiences

1. stimulate thinking
2. can help children understand their own ideas and feelings
3. can help children develop understandings of other people
4. can be a form of communication
5. can provide for self-expression
6. can provide for creative expression
7. can help children develop social interaction
8. can help children develop physical skills in common and unique activities
9. can provide opportunities for cooperation and competition
10. can help children clarify concepts about their environment
11. can contribute to the development of fitness
12. can be a medium for helping children understand how their bodies work.*

Such values are of course to be emphasized in many areas of the curriculum, but since physical education provides such a rich setting for these values, teachers might well be encouraged to study seriously ways of extending their programs. The classroom teacher has unlimited opportunities to include movement experiences in the daily program, an activity not to become confused with that of a specialist teacher for physical education, but there is a challenge to the regular teacher to be alert for opportunities for children's physical activity. Perhaps the specialist teacher can help the teacher with plans and particular skills. There is a place for both to work in this field.

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* Adapted from Gladys Andrews, Jeanette Saurborn and Elsa Schneider, *Physical Education for Today's Boys and Girls* (Boston: Allyn and Bacon, Inc., 1960), p. 7

Achieving the Values

For physical education to become vital and to achieve its maximum value, the following conditions might be considered:

1. Teachers should not fear movement, since age is no determent for physical education.

2. Children need to be free to express themselves.

3. Children might be helped to include movement as a way of communicating ideas and teachers might increasingly make it acceptable.

4. Movement should not be confined to the gymnasium, all-purpose room or outside play area. There are many ways of using the classroom.

5. Teachers and children need to develop and use a basic movement vocabulary.

6. Movement experiences must be purposeful. When possible, these purposes should be related to other learnings, other curriculum activities, and interests of individual children.

7. Physical education must begin with the earliest years,—it cannot wait until fourth or fifth grade.

8. Movement is a basis for *all* physical education activities.

9. Physical education provides opportunities for all children to participate, belong, achieve, be accepted.

10. From time to time physical education may lose its identity as such and become absorbed in activities that include color, sound, dramatics and movement exploration.

11. Physical education may "spill over" into developing vocabulary, creative writing and other language arts activities, thus extending meaning and vitality of school activities.

12. Children reveal through movement many important feelings, fears, concerns, interests, aspiration and relationships.

13. Children often like to work in small groups, using the medium of movement.

14. Planning, thinking, work habits and evaluation techniques may well be emphasized through physical education in meaningful and efficient ways.

15. Listening to children and observing them in movement activities often give the teacher important cues as to interests, understandings and problems that aid in planning.

16. Program planning needs to be developmental with recognition that physical status of a group of children varies; they cannot all be expected to perform with the same skill or interest.

The above items are not intended to be prescriptive, but reflect elements that appear to be most important not only in curriculum theory but in achieving goals in curriculum practice.

Planning the School Day

The teacher's plans for the day take many factors into account. The purposes, having to do with over-all directions he is seeking with the group, both immediate and long range, must be considered. He also plans in terms of space or spaces available and times when particular spaces can be used. Available material and equipment are important considerations. In addition to these essential factors which condition and undergird the planning, there are numerous specific factors contributing to the usefulness of the planning. Among such specifics are:

- There is a Joe (or a Bill) whose status and needs at the moment must be considered. Perhaps he needs to relate to other boys; hence the teacher must work out a variety of ways of planning for Joe.
- There are concepts the group seems to be having trouble understanding. These concepts are difficult to define—perhaps they can be clarified by simple movement experiences. With young children, movement can clarify "up," "down," "over," "under," "high," "low," "fast," "slow." Or perhaps we can "walk like a bird" or "swim like a fish" or "jump like a frog." Older children might move the degrees of a circle, travel an hypotenuse or jump a synapse in a flow of electricity. The important thing to bear in mind is that movement may become a means of clarifying ideas, of seeing relationships, of helping children establish meaning.
- There are individuals who need to find satisfaction in relating to the group. It would be too bad to make such children "it" in a game situation, but they can work with a group on a specific project. The group working on the solar system might show it through a movement composition.
- A group needing to be challenged with a new game might well be helped to listen to projected rules, develop skills, adapt the game and teach it to other children.
- There will be need for some emphasis on small group activity. Uses of singing games (action songs) with movement provides an interesting way of working. Here feelings, impression and sensitivities can be portrayed using movement as a medium of expression.
- The planning might include a story the group is to read, perhaps a story that will tell of migrating birds and ways in which different types fly. What an opportunity to share this in movement with the entire group! Provision can be made to include sound. This may require space; a short time in the gymnasium will give this group an opportunity to work. This too is planning.
- The teacher is always on the alert for an appropriate phrase or a colorful idea. Perhaps someone will verbalize an idea which can be communicated through movement that might also include a song. For example—"When I go up a fluffy cloud floats by."

• Each day should include opportunities for children to engage in exploration. Freedom to express one's self, to explore, to move, serves a powerful motivating function. Through exploration of movement a child finds unlimited "things" he can do in whatever space he has and comes to realize that he can use a part of his body or several parts. Exploration may often include poems, color or sound with movement. The product may become a game, an experiment, a reading chart, a plot for a story, a mural, a chant or song.

Another Look at Games

It is important for teachers to understand the nature and sources of games and the function they are to serve. There is no prescribed list of first-grade or sixth-grade games, since no two groups of first-grade children are the same. In addition to the heritage of games passed down to us, new, meaningful games emerge from exploration and creative expression. In selecting these, there is need to examine their meaning for a particular group of children, for a particular type of planning is required.

Games must be selected for the specific purposes to be achieved. There is an important developmental sequence to games. In analyzing them, it is helpful to recognize that all games:

• have a purpose, or a goal. The purpose or goal becomes a challenge.

• have a challenge that suggests taking chances.

• have rules that must be followed, that give direction and call for controls.

• have defined boundaries, formations, or areas—circles, lines, courts.

• involve motor skills and skills of thinking, problem solving, communication and social skills.

• call for participation, becoming actively involved with oneself, with others.[1]

An important statement about games follows this analysis:

"If teachers are concerned with providing games which will facilitate learnings for all children, then all children must find some kind of accomplishment. This means that there is no such thing as elimination from a game because one gets tagged, does not hit the target, or does not run as fast as the others. These are children whose skills are just developing and who need many opportunities to try, to do, rather than to be rejected because they could not. Elimination or rejection from a game because of inadequate skill development at the time may cause untold future difficulties for the child. We want the child to yearn to participate, to try to improve, rather than to feel defeated because of his level of skill. It is imperative that the teacher know the background

[1] Paraphrased from Robert S. Fleming, *Curriculum For Today's Boys and Girls* (Columbus, Ohio: Merrill, 1963), p. 231.

of her children when they are engaged in game situations. Putting a child in an "it" situation before he is emotionally mature enough to stand against a group, or to take responsibility for the group in a leadership role, can cause reluctance to participate.

"As natural outcomes of games, sports are complex forms of movement which include the same common elements as those listed in games. If children have had satisfying game experiences they will eagerly participate in sport activities during their lifetime in and out of school and beyond school days." [2]

Dance is also a complex movement form. It can only emerge from many opportunities for an individual to express himself. The early school years should provide many creative rhythmic experiences that would help children to fulfill two fundamental needs—"to move and to express." Appropriate planning for creative rhythmic movement is required since it is the child's interpretation of thoughts and feelings expressed through the use of his body.[3]

And so the planning, which must be done by the teacher, of experiences for children in movement education (physical education) involves relevant factors, of which many are subtle. Further, planning is continuous and developmental, often to be sharpened, reshaped or revised on the spot in response to children's cues, time, factors or interests.

Avoiding Pressure

Plans that make extensive provision for movement have dynamic consequences. The power of meaningful experiences for children in fostering good mental health have long been recognized. Increasingly today, there is also the need to recognize the force of pressures on children. Pressures "to be first," "to receive high marks," "to excel," "to be placed in a particular group," "to achieve" are real and powerful.

When interviewed about their concerns, pupils included the following types of items as of great concern and related to pressure:

"going to college
competition for grades
marks
getting into an Ivy League College
excessive homework
not enough sleep
feeling tired
teachers
responses of parents" [4]

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[2] *Ibid.*, pp. 231-32.

[3] Gladys Andrews, *Creative Rhythmic Movement for Children* (Englewood Cliffs, N. J., Prentice-Hall, Inc., 1954), p. 45.

[4] Taken from Ronald Doll, "The Heat Is On," Ronald C. Doll and Robert S. Fleming (Columbus, Ohio: Merrill, 1966), *Children Under Pressure*, pp. 3-14.

Photo, courtesy Robert S. Fleming

Many of these pressures are external in origin and are clustered around academic skills. For many children and their parents, academic success is the main stream of intellectual activity. Increasingly, we are realizing that as children are finding satisfaction and success in movement activities they are reinforced for more mature academic work.

We often try too hard. Parents are preoccupied with direct relationships between work and drill and do not realize that experiences enhancing meaning and experiences contributing to feelings of pride have powerful consequences for multiple learning.

In no way is this an attempt to soften school, to minimize academic growth or to allow the children's school to consist only of narrow conceptions of play. It is, however, an attempt to make school activities vital, exciting and special.

Out of the richness and significance of physical education come vocabulary, self-assurance, involvement and improved quality of relationships with peers. Also there are many manifestations of creative expression and of effective thinking.

We return to our central premise that every day in school is as special for a child as he is free to express himself in meaningful ways and to capture and hold the thrill of using his body, to express his ideas and to expand his learning in many ways.

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WHAT MAKES A GOOD PHYSICAL EDUCATION PROGRAM?

A good physical education program is based on the developmental characteristics of children. Knowledge and understanding of the general pattern or sequence of motor, emotional, social and intellectual growth are necessary in designing programs in order that children may have joy in the experience of participation in physical education activities. Such knowledge and understanding will strengthen the recognition that differences exist among children of the same chronological ages in each aspect of growth and within each child among the several aspects of his development. When physical education is viewed as a means through which educational objectives can be attained, when plans are designed for a progression of activities leading beyond today, when specific skills relating to the characteristics of children are planned and taught, then and only then, will each child be educated to his fullest capacity.

Why Physical Education?

1. Attitudes basic to a democratic society are learned by the child as he participates in many physical education activities. Democratic belief and attitudes begin with self-acceptance. Acceptance of one's own strengths and limitations is the basis for the acceptance of other people. Goals which are realistically set increase the individual's opportunities to enjoy success and, thereby, increase his feelings of self-acceptance.

2. Optimum growth and development are achieved through planned developmental experiences in movement. In accepting this as a goal, one assumes that the physical education program must accommodate the characteristics of each child. Movement experiences should be planned for group needs and individual differences. For example, if a child has not learned how to run he is not ready for the dodging-tagging required in running-chasing activities. He learns first to run on the balls of his feet, to stop on a signal, to stop on a line, to touch a line and turn, to dodge and finally to tag. As he experiences each of the parts of the running skill, he should be given opportunity to use that particular part in activities in which only that part of the skill or preceding ones are used. In this way he runs with less falling and, in developing the over-all skill of running, his confidence in himself increases. While learning the skill he is experiencing self-discovery: how he relates to another person and how together he and another affect each other. He is growing socially and emotionally.

The intellectual aspects of learning to run are the how and why of skill performance. When the child explores these questions he discovers the answers. In addition, he learns to follow directions, to obey rules and to accept penalties of being tagged. Thus we see the continuum; the child is learning a simple skill and all that is inherent in the experience as does the adult who enjoys recreational participation evolving from earlier experience.

A design for teaching movement skills essential to running and stopping, turning and stopping, dodging and tagging activities follows:

Exploration (exploring movement)

↓

Discovery (learning)

↓

Use (games)

The method for teaching the skill is movement exploration. Through the exploration, knowledge and understandings about the skill are discovered and developed. The skill, when learned, is then used in a game. This design, briefly described, can be expanded to meet the needs of any class. Other play skills and team sport skills can be similarly designed for effective learning.

Running and Stopping

Explore: Children scatter over a play area. All run within this area and stop on a signal.

Teacher: "I can hear many different sounds of running. Who knows what I mean?"

Discover: The question leads to discussion of sound. The teacher heard a loud noise. What does this mean? Pounding feet. What's wrong with pounding feet? Recognition of the need to run lightly

on balls of feet results from this question.

Teacher: "Why do you suppose some of you fell down on the signal to stop?"

Discover: Discussion leads to an understanding of *balance*.

Explore: Children try various stopping positions to find one that will make them feel so steady that even when the teacher comes around and pushes them lightly, they seem solidly rooted.

Discover: To stop in *balance* you stop in a forward-stride position with weight placed equally between two feet. Knees flexed to lower the weight helps balance.

Explore: After these discoveries children continue to run and to stop so that the learnings may be firmly established.

Use: Squirrel In Tree; Red Light

Starting and Stopping

Explore: Children stand on one end line of the playing area and experiment with starting position for running games. They discover feet are in a forward-stride position with weight on forward foot; eyes are looking ahead. On a signal they run to opposite line and stop in balance; teacher comments some have turned one way, some another.

Discover: On trying again, pupils discover correct way to turn is to touch the line with one foot and turn on the balls of both feet rather than the unsafe method of circling.

Use: Fire Engine

Dodging and Tagging

Explore: Walk around a big area in different directions. How closely can you pass others without touching anyone?

Discover: How to avoid bumping into another person, how to dodge and move away to avoid collision.

Explore: Children repeat exploration, running instead of walking. The children tag the persons they are dodging.

Discover: Good tagging is lightly touching another; pushing or holding is unnecessary.

Use: Animal Chase, Bird Catcher, Chickens Come Home, Midnight, Old Mother Witch[1]

Learned in this manner, the skill of running becomes a part of the child as he moves through various physical education experiences. Now he has acquired a motor skill he will use in future leisure-time activities. In addition, he learns in a positive way safety factors important to his daily living. For example, in running in games, the child looks where he is going to avoid collision, not to avoid getting hurt. He looks to where he will move to avoid bumping others.

[1] See Bibliography.

Who is responsible for good physical education programs?

The community, parents, schools and teachers cooperating, are responsible for providing the kinds of physical education experiences vital to developing girls and boys. It is up to schools and teachers to lead parents and community in setting realistic objectives. When schools, through action, show that they are interested in the best for all children, parents and community may then be expected to provide the means for the development of good programs. Physical education must be taught by persons qualified to teach it with sufficient time, adequate facilities, equipment and supplies provided to assure effective teaching. Essentials for good developmental physical education activities are adequate play space, equipment and supplies. No one expects a child to read without access to the necessary books and materials vital to learning the skill. Why should teaching physical education be attempted with inadequate teaching tools?

Play areas—and children can be encouraged to help in planning and marking—can be laid out with lines, circles, courts and diamonds for a variety of play skills and games. Dance to be taught effectively requires sufficient indoor space for unlimited exploration of its many facets and for performance of the many dances children will create and learn. A few schools have adequate outdoor areas for dance activities. Stunts, tumbling and gymnastics also are usually performed best indoors in a gymnasium or multi-purpose room. Separate play areas for playground equipment appropriate to grade levels using them are needed for well-rounded programs, with such equipment as jungle gyms, horizontal bars, horizontal ladders, and balance beams.

Necessary supplies include record players, records, rhythm instruments, various-size playground balls, kickballs, volleyballs, basketballs, footballs, softballs, bats, bases, batting tees, jump ropes, beanbags, hoops, balance boards, tumbling mats, jumping standards, stop watch, pinnies and metal tapes. There must be enough balls to give every child plenty of opportunity to practice and they should be of appropriate size for elementary school children.

A central supply room where teachers get balls and other equipment needed for their daily program is the most practical way of providing equipment and supplies for all grades. In addition, each room is given supplies for play outside the physical education class. A more desirable method, of course, is to give each room what it needs, but this, more costly than pooling equipment, is not feasible in many schools. Wherever there is a physical education consultant (and it is to be hoped that there will be an increasing number), the teacher will call upon the specialist to help in planning and carrying out the program.

Competition

What about competition? The usual conflict between competition and cooperation often implies that they are not compatible, when actually it is possible to learn cooperation while competing. At the elementary school level, playing a lead-up game to a sport or a modification of a sport is an example of cooperation and competition in a compatible situation. Research in psychology and education produces evidence of the harmful effects of making children face competition and challenge for which they are not ready. When a child faces repetitive failure the level of his aspirations may be lowered to the extent that his self-image suffers and makes future efforts difficult because of his belief in inevitable failure.

If certain safeguards are provided the child can benefit from competition:

- the child must have sufficient skill in whatever activity he competes to assure his chances for success (which does not necessarily mean winning)
- both teacher and child should be more concerned with the game's contribution to the development of the child than with his team's winning
- participation must be provided for all children, which assures shorter periods of competitive activity and guards against physical and emotional exhaustion.

Since most games are based on competition it would be foolish to believe that competition should not be part of the physical education program. First, the *me*-centered primary age child learns to compete so that *he* can win. His first experience with a team concept should come with the simplest form of team activity, the simple relay, where his skill, speed, ability to listen and to follow directions contribute to his team's success or failure. As he develops into a *we* person and enters the upper elementary school grades, he demands greater competitive action.

Photo: Don Cannon, Washington, D. C.

It is here that the elements of a true team game begin. Now, with proper guidance, he learns to forget the *me* for the *we*. When this happens, cooperation and competition are compatible. The child who continues to be a *me* person has difficulty in competitive team experiences. He has to learn that almost everybody playing has something to contribute to the game. Some have skill; some, courage; some, good spirit and some, determination. Successful team effort requires that the contribution of all players be pooled and used in a cooperative venture—competition.

Competition within schools can take place in several ways. One form of effective competition is through intramural programs for all intermediate grade children participating in competitive types of games in their physical education classes. Teams are formed, tournaments are arranged and games played at the noon hour or after school. Girls and boys generally play in separate activities. Play days are exciting. Several schools may be invited to one school and teams are composed of children from all the participating schools. These teams play each other.

Competition can be a positive factor in elementary school physical education. Through common efforts children learn to work together in a competitive situation containing roles young people will play later in a democratic, competitive society.

Development Programs Are Essential

What then makes a truly good physical education program? If girls and boys are to receive the full benefits of physical education, there must be a well-planned, guided program in which all persons concerned with the school and the child (parents, teachers, community) cooperate to the end that these benefits may be achieved. The primary interest must be developmental programs for all children. This concern must be the guideline on which all other action is determined.

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A FORMULA FOR PLAY: CHILD + SPACE + IMAGINATION

Curbstones are to balance on
Far from the ground.
Railings are to slide upon
And trees for running around.

Fences are for wriggling through
Cracks and holes to hop.
And though she does not like us to,
Puddles are to plop (2)!*

To balance, climb, slide, run, wriggle, and hop are natural activities of children. Children on their way to and from school do not always take the most time-saving direct route. They balance on narrow curbs, stop to investigate any construction on the way, slow down to hop one-footed across sidewalk cracks or to shuffle through a pile of leaves; or speed up to run a race. They derive joy and pleasure from movement for its own sake.

Pediatricians, educators, and specialists in child development are quick to point out that children must engage in all types of physical activity in order to develop properly. Participation in play activities, child psychologists note, is also essential to sharpen judgments, build mature concepts and enhance self-esteem.

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Space To Play

As our society becomes increasingly urbanized, however, youngsters may be limited in the kinds of available play spaces. Heavy traffic on most streets in the modern city makes it unsafe to balance on curbs. There are few fences and open spaces that invite climbing and running. Even now the grass and tree areas in many parts of large cities are preserved for the touch of beauty they give to an otherwise concrete world rather than made available as places for children to play.

In 1870 the establishment of a playground in New York City's Central Park was a public testimony that there must be provided special spaces in which children might play (1). Children always need places to play, places where they can go to be by themselves, places where adults need not prevent them from engaging in such natural play activities as climbing, digging and jumping.

Children, tireless explorers with inexhaustible energy and filled with ceaseless wonderment, need opportunities to create, discover, manipulate, experiment and take risks.

Flexible Equipment

Yet, in designing spaces reserved for the play of children, have we really incorporated what we know about their needs for play? As we watch youngsters playing on traditional playgrounds, we are often quick to make the judgment that we have provided just what they want and need. After all, they look as though they are having fun. Perhaps we make a mistake in using fun as our only criterion for play. How much encouragement to creative effort, imagination, exploration and experimentation is provided by the apparatus in the typical playground? Slides, teeter-totters and swings are built to be used in one specific way, but the adventuresome child in playgrounds equipped only with these stereotyped articles often finds himself a captive in a situation with few creative resources. Soon bored with sliding down the slide, the adventurous child discovers it can be fun to reverse procedure and climb up the slide. But this spells trouble, for eventually someone is met on the downward path. Swings present a similar hazard. This piece of apparatus becomes dangerous when the child, tired of just swinging, stands, twirls, or tries to go as high as possible and then parachute out. Designated for specific and limited play activities, many conventional pieces of play equipment can become dangerous when used in any other manner (5). Yet, the child is doing nothing wrong; he is merely following the dictates of an exploring nature (1).

Children do not always want to play on fixed equipment. What they do want and need is equipment on which they can exercise their imagination through a variety of activities.

The usual conception of play facilities is of nice, neat, fenced-in areas with shiny slides and brightly painted swings. We hesitate to give

youngsters items which appear to us unattractive, useless or of no value, and yet, what child would not delight in testing his skill in balancing by walking on discarded railroad ties? How much fun to scramble through a series of tires, to pile them side by side forming a tunnel through which to crawl or to curl up inside one and roll down a hill! A large wooden spool can provide for a child the same thrill as a log rolling down rushing rapids. A discarded bathtub becomes a steamboat, an atomic submarine or a guided missile. Inflated inner tubes become launching pads for future astronauts. What child would not be delighted to be the sole operator of an old threshing machine? Imagine the excitement and adventure children have crawling into a tree house which they have worked hard to construct. They did it themselves and nothing can quite equal the sense of accomplishment derived from occupying a castle in the tree tops.

Those who are concerned—parents, educators, sociologists and architects—are becoming increasingly aware of the need to design recreational areas relevant to children's needs; to provide places that allow children to satisfy natural, normal urges of play and at the same time provide the needed equipment to encourage creative thought and expression in the pursuit of physical activity.

Innovations in Playgrounds

Current trends in designing play spaces for children reflect this kind of thinking. The construction at the Jacob Riis Plaza, recently done in connection with a low-income housing project in the slums of Manhattan's lower East Side, is an attempt to meet play needs of boys and girls. The success of the area, filled with brick igloos, concrete pyramids with slides, trees placed there specifically for climbing, concrete sculpture, and boxes of all shapes and sizes, is shown by its use by children of all ages. In describing the plaza, Simon Breines, a member of Pomerance and Breines, the architectural firm that designed this unusual and imaginative play space, states, "We've discovered that if kids can climb, run over, or jump on something, they won't break it or deface it. They just enjoy it" (3).

One of New York City's newest playgrounds is a space filled with interconnecting boxes and gaily colored free forms. All the items were made from standard industrial materials which the designer, Jerry Lieberman, felt had "inherent qualities for new kinds of play" and were safe, attractive and cheap. The result—"a fantasy land where the only limitation is the limitless one of a child's imagination" (13).

Jacob Riis Plaza Playground, New York City
Pomerance and Breines architects.
David Hirsch, photographer

Junk Playgrounds

In contrast to these innovations stands the "junk playground" in which children are given raw materials rather than finished, flexible structures. Here children may explore such material for its own sake and give expression to their imagination by fashioning their own play structures.

The "junk playground" was the inspiration of C. Theodore Sorenson of Denmark, a landscape architect and designer of many of Copenhagen's playgrounds. He frequently observed that children went to building sites and had games with many of the items left lying around. Although he first suggested in 1931 the establishment of a site where children could create their own kind of playground using old building materials and other junk, it was not until 1943 that the first "junk playground" was opened in Copenhagen. Similar projects were developed in England during the postwar years, when a few imaginative adults observed the enjoyment children had in playing with chunks of cement, bricks and twisted piping in the rubble of bombed-out building sites.

At least one such playground has been established in the United States. Known as *The Yard*, this playground was a contribution of *McCall's Magazine* to all American children in 1950, the year of the Midcentury White House Conference on Children and Youth (7). *The Yard* was built in Minneapolis in a then new housing development area in which there were 685 children, on a site that had previously had no grass, trees or places to play. The idea of *The Yard* was to give children their own spot of earth and plenty of tools and materials for digging, building and creating as they saw fit, at the same time giving them the freedom to discover the basic process of living through play. It was equipped with tools, used lumber, bricks, tiling, paint, nails and second-hand materials of all kinds. Lots were laid out in ten by ten-foot areas, and youngsters from eight to sixteen were invited to stake out claims.

A report of the year-long experiment reveals that at first children came out of curiosity. They began to work alone but soon discovered they needed each other's help. In working together "they learned to control tempers, make decisions, and share blames as well as praises" (7).

It seemed that the "junk playground" concept might be one way to meet criticisms of the inadequacy of stereotyped playgrounds and thus provide a situation in which children might create, discover, manipulate, experiment and take risks. In order to get some understanding of how this idea worked out in practice, the writer established a "junk playground" at Iowa State University in Ames, Iowa. What follows is a brief record of this project.

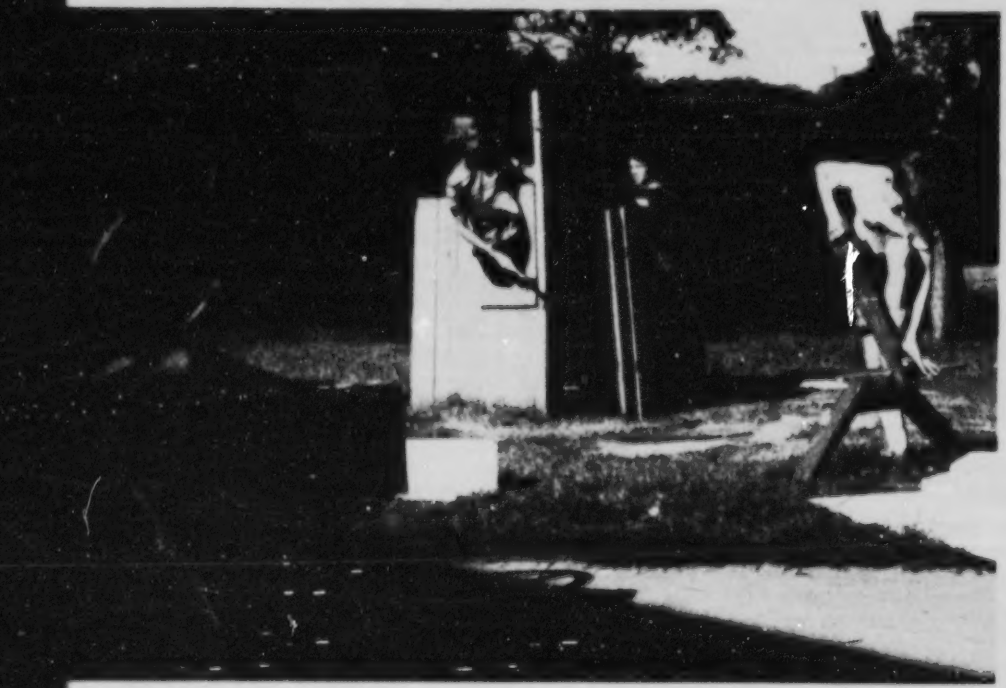
Railroad ties and old automobile tires were the first acquisitions in the collection of articles for the "junk playground" that began one fall. These were followed by many odd items, discarded styrofoam boxes, firemen's helmets, large wooden cable spools, assorted nuts and bolts,

old piping, and scrap lumber. With the acquisition of each new item, the writer became excited about having children share these things.

Early the next spring, concrete plans were made to establish a "junk playground." Permission was granted to use an area adjacent to a building on the university campus. This area, though it contained scarcely 1500 square feet, served well in that it was grassy and wooded, bathroom facilities were nearby, and the entire plot was surrounded by trees and shrubbery that formed a natural wall. Because the area was small, it was decided to limit participation to six children. As it turned out, all six were boys, ranging in age from eight to eleven. Several local lumber companies agreed to save scrap lumber and a weekly pick-up time was arranged.

Prior to opening the playground, the writer met with the boys and their parents to explain the purposes of this project and to give them some background information about "junk playgrounds." Both parents and children were enthusiastic and cooperative. The project was conducted over a four-week period, the playground being used each weekday morning from nine to eleven.

Junk Playground, Iowa State University, Ames
Photos, this page and following, courtesy Carolyn J. Kaiman



Clubhouse under construction

"When constructing the model car, they realized that nails were at a premium."

On the first Monday, only Danny and Andy, the two eleven-year-old boys, were asked to come. After examining the available materials and the area set aside for the playground, we spent some time talking about the kinds of tools thought to be needed. After they had compiled a list of equipment, we went to a local hardware store. Although no mention had been made of how the allocated money was to be spent, they showed admirable initiative in comparing prices, deciding which was the best buy for the money. Selection of nails was a major project; both were surprised to learn that nails were bought by the pound. We returned to the playground with five hammers, a wrench, pliers, two saws, assorted sizes of nails, two screwdrivers, and seventy-five feet of rope. Tuesday both boys arrived with nail aprons brought from home. That day they spent building a box for nails, arranging and rearranging the tools in the tool shed, designing and building a drafting board, and talking about converting an old door into a workbench. Both managed to hit their thumbs several times as they used nail after nail. Also, they sawed what few large boards were available instead of using some of the smaller pieces of lumber.

Later in the week when constructing a model car, they realized that their nails were at a premium and that some of the large lumber that had been sawed earlier would have been ideal for their current project. Having learned their first lesson, both were more careful with supplies in the future.

Although much of their time was spent in construction, the boys often stopped to play on the spools, climb a nearby tree, "race" their

Stopping to play on the spools

partly completed car, or swing from a ladder and tire they had attached to a tree.

On the following Monday the four other boys came for the first time and became excited about constructing a clubhouse. Andy and Danny decided that they too would build a shack. The two groups argued and fought for lumber and tools, both refusing to share with the other. Before the projects were completed they found that each benefited from sharing these items and that often they needed each other's cooperation to carry out their plans.

By the end of the second week Andy and Danny had built their tree house complete with a hinged trap door, a fireman's pole lashed to a top branch for a one-way exit and a ladder hoisted into the tree house to prevent anyone else from entering. The ground shack too was amazingly well constructed. A window had been built and material brought from home for a curtain.

During these four weeks the tree house, car and shack were the biggest projects constructed. In addition, much time was spent making and racing with tin-can stilts, playing with a parachute and engaging in a game they had invented with a volleyball.

The last day we spent some time evaluating the project. All the boys felt that these types of material and tools should be made available at already existing play areas and that children should be able to come and go anytime they wanted. It was felt that an adult should be there at all times and they offered some specific rules for the maintenance of the playground.

The question, "was the playground enjoyed?", could be answered merely by watching the boys totally engaged in what they were doing and their happy expressions of pride at the completion of each project.

Although short-termed and on a small scale, the Junk Builders' Paradise demonstrated, at least to this writer, that the "junk playgrounds" could become places in which children might find opportunities to create, discover, manipulate, experiment and take risks.

But the "junk playground" achieves more than the fulfillment of these needs. It produces an involvement of the child with space and material not apparent in other types of play areas. As Rudolf Lave put it, "There is still in every boy a 'Robinson Crusoe,' an 'Edison,' a daring adventurer, an artisan, and in most girls the desire for having a neat garden, helping the 'man' build up, for cleaning up and decorating. And the playground is still sort of an answer to that" (8).

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MOVEMENT— A WAY OF LEARNING

Is there anything more thrilling in the whole world than to see children *moving*, m-o-v-i-n-g, M-O-V-I-N-G, moving because they are alive, moving because they have something to say, moving because they have tasks to achieve? Movement is the universal language of boys and girls and their most natural form of expression. It is a form of expression free of vague verbalizations, a language that speaks through the whole body, communicating and responding in purposeful ways. All children move. Movement gives their lives increasing meaning. To be alive is to move! The extent to which adults prize this vital, vibrant, basic characteristic of children determines the extent of movement development for individual children. Movement is one of the most dynamic of human essentials.

How wonderful it would be if adults had as much concern about the development of children's movement skills as for a baby's crawling, standing and walking! These early stages of growth are but the beginning; subsequent development is equally significant. Adults need to understand, encourage and make it possible for children to develop movement competencies. In specific ways, movement becomes a self-motivating force for each child, helping him not only to express himself more adequately, but to live a fuller, more vital life.

Movement—an Essential in Human Existence

There is a synonymity between children and movement. That is to say, children's movement is an inherent part of them as individuals—one of their nonverbal forms of expression, the urge for which is especially strong in children for whom large, unstructured actions are natural outlets for communicating thinking and feelings. Boys and girls solve many of their problems as well as respond to situations through movement. They react to the world about them, using movement as their form of communication either spontaneously or after considered thinking. Until we know something about their "movement quotients," it is impossible to "know" children. The inherent need of children to *move*, to express and communicate through *movement*, demands the thoughtful appreciation and understanding of all those adults working in early childhood and elementary education, not just the "specialist" or "special teacher." In the past the responsibility of understanding the development of the physical skills has been delegated to a specialist, which is predisposing that a child can be developed, looked at, understood or assessed in parts. Not so!

It is understandable that comprehensive, developmental programs concerned with *movement* have not been a vital part of our classrooms; but as teachers better understand the case for movement and are able to overcome doubts about time and lack of space, realize that movement development starts before a child comes to school and can be fostered anywhere at any time, the attitude that movement education belongs outside the classroom is no longer tenable.

Meaning of Movement

More inclusive than what has commonly been thought of as "physical activity" or "physical education," Movement is the unique ingredient of physical education and the *basis* of Physical Education from which physical activity skills emerge. But it is much more!

Movement means activity, getting one's self into action. A child might say if asked, that movement is "going across the street and looking both ways;" managing himself on a tricycle, a bicycle, roller skates or ice skates; on apparatus, the escalator or the fire escape. But it is also the activity of propelling one's self in and through various dimensions and amounts of space; it has to do with use of spaces: going sometimes fast, other times slow; in large movements or restricted; and being able to adjust the body to space available. Movement includes walking, jumping, hopping, swinging, pushing, pulling, bending, climbing, catching, throwing and skipping. It is playing games, doing stunts, participating in creative rhythms, dancing a song, kicking a ball, running races and leaping a hurdle.

Movement involves sensing and responding. This quality is essential to human existence. It is reacting to internal and external stimuli, such as protecting one's self or getting out of the way of a moving vehicle or object; it is letting go or releasing tensions; it is following directions, participating and contributing; it is the ability to "feel" and outwardly respond to the beautiful in nature or in one's surroundings. It is working and playing.

Movement involves learning. Movement is a way of expressing ideas, feelings and concepts; it is sharing what one knows or understands. It is perceiving, conceptualizing, thinking, judging, identifying and solving problems. Movement is a way of learning; it includes discovering elements in one's surroundings and adapting energy patterns accordingly. It is a way of exploring ideas, making decisions, taking responsibility, inquiring and evaluating, making adjustments and trying out alternatives. It implies "trying again and again." Movement manifests itself in creativity as a high form of *thinking.*

Movement involves motion. Children in movement transfer the body or body parts through space, using energy, timing and pacing, adjusting the body weights. Adapting the body or body parts to external objects requires control and coordination whether movement involves contact with a pitched ball or an elevator door; or the adaptation of the body to the abstract pattern of a polka step.

Movement denotes growth. In movement, boys and girls are continually releasing energy, using strength, applying force, developing equilibrium, gaining coordination, increasing their endurance and power, as well as gaining confidence, skill, and using "my thinking." They are also perceiving relationships and interacting to people and things. Continuous growth takes place when a child

"develops confidence in managing his body and skill in manipulating the objects in his environment. He learns to negotiate the curb, to climb, to pull toys, to push the chair to a more favorable spot. He learns how to bend to pick up a ball he has been chasing. He learns how to control the ball, to catch it—at least part of the time. He experiments with turning upside down as he rides a bucking bronco, pilots the fastest jet flown, or dances to the television program. He runs to hide from his playmates only to wait breathlessly until he is caught. He enjoys wrestling with a friend and even challenges his older brother or father. When he is older, he plays games, dances, swims and becomes concerned about how he is doing. The things he does and the way he does them, what other people think about him and the ways they work and play with him shape the image that he is building of himself." [1]

Movement is purposeful. No matter how viewed—as activity, catalyst for sensing and responding, a way of learning, motion or dimensions

[1] Andrews, Saurborn and Schneider, *Physical Education for Today's Boys and Girls* (Boston, Mass.: Allyn and Bacon, 1960), p. 4.

of growth—movement is purposeful. Extensive, varied movement experiences and tasks are purposeful because they help boys and girls to cope with their world and themselves. Movement does not serve the same purposes for all. Each child reveals his purposes, thus: "Can you do this?" "Bet I can do it a hundred times!" "Look at me!" "That felt good." "Look at me away up here!" "Man, that was a throw!" "Watch me hop." "I can't seem to make my feet go fast enough." "Look, I can button my own coat!" "Want to see me tie my shoe?"

The Over-All Structure of Movement

In any area of curriculum there is a basic body of content reflecting the broad understandings, principles of the field and major ideas to be studied. There is design, logic and development of these principles upon which content is based.

In physical education content grows out of the nature of human movement, which is the foundation for the structure of the discipline of physical education.

Basic Movement Symbols

What is the basis of a physical education program? We might ask the same question of other areas of the school program. What is the basis of skills in arithmetic, reading, writing, music or science? Each has a series of basic symbols with a specialized vocabulary to be mastered.

In writing, many specific skills must be developed before a story can be written. Letters, words and symbols are involved. Through experiences children are helped to expand, combine and relate symbols. From basic symbols come words; from words come sentences; from sentences paragraphs; from paragraphs come compositions or stories.

Each of the following movements (which might be listed in any arrangement, since there is no particular sequence desired) may be thought of as one of the symbols for physical education:

Walking	Bending and Stretching	Twisting and Turning
Jumping	Swinging	Bouncing
Hopping	Pushing and Pulling	Shaking
Running and Leaping		

Each symbol, used by children for different purposes, has its own structure, feeling, meaning and association, with a distinct label for each. A jump is a *jump*, a hop is a *hop*. Each is different, with its own structure; each can be described and characterized and is a part of the vocabulary.

Basic movement symbols cannot be performed in isolation or be unrelated. For example, one does not walk without bending or swinging the arms. When working with young children it is important that only one movement be emphasized at a time.

An Analysis of Movement

As there is no one accepted classification of movement, so there is no particular sequence for presenting or developing basic movements.

The analysis of movement presented below has emerged over the years from the writer's work with children and teachers. To help clarify meanings of the various movement components, children's terminology is used. Their illustrations have been taken from recordings of stenographic notes from work with many groups of children and teachers in various locations throughout the country. This material has been constantly refined, evaluated and used in work with children.

Chart I, "An Analysis of Movement" * consists of basic movements (Movement Symbols) and an explanation or description of the movement. Actually this is a type of working "definition" of the basic movements. Each movement is also defined and described by boys and girls. The fourth column, which includes comments children make as to meanings and/or associations, illustrates the dynamic clarity which comes with actual words of children.

It is important to start working with children, *exploring* and *developing* some of the basic movements (basic movement symbols) before progressing to more complicated movement activities.

Exploring, developing and using basic movements enable children to discover what their bodies can do. Children are eager to find various ways of handling their bodies, as a whole or by parts, as they stay in one place or move in and through *space* with varying degrees of *force* and with different rates of *speed*. Progress in gaining control and in handling one's self is predetermined by each child in comparison to himself. No two children are alike, but when given plentiful opportunities *all* children may become skillful in Movement.

As children have meaningful opportunities to use basic movement in a developmental, progressive, sequential way, combinations of basic movement or complicated movement skills emerge (Illustrative: *skip*, combination of two basic movements, the *walk* and the *hop*). Until a child can *hop* (can maintain balance, handle himself adequately with either foot with a hop), he cannot hope to skip. Other movement skills are: sliding, galloping, kicking, throwing, catching, climbing, tagging and making the ball bounce. As children gain skill in handling them-

* Material adapted from original work of Gladys Andrews and recorded in:

a. Gladys Andrews, *Creative Rhythmic Movement for Children* (Englewood Cliffs, N. J.: Prentice-Hall, 1954) and projected revision 1968.

b. Robert S. Fleming, *Curriculum for Today's Boys and Girls* (Columbus, Ohio: Merrill, 1963), pp. 224-35.

CHART I BASIC MOVEMENT SYMBOLS

	BASIC MOVEMENTS	SYMBOLS	MOVEMENT VOCABULARY
BASIC MOVEMENTS	EXPLANATION DESCRIPTION	WHAT BOYS AND GIRLS SAY	ASSOCIATIONS— MEANING FOR CHILDREN
WALKING	Transferring weight from one foot to the other. One foot is on the floor at all times.	"Going 'some place' from one foot to the other or from one foot to the other 'right here'."	Walking like bears. Duck with a feather on his head. People walking in outer space, in mud, in leaves. Walking on stilts, balance beam, ice, tightrope. Promenading in a square dance.
JUMPING	Distributing weight on two feet; elevate by pushing off the floor; landing on floor with both feet simultaneously.	"With two feet take off into space and come back to floor on two feet."	Jumping like my dog, frogs, kangaroos. Salmon going up stream. Jumping like grasshoppers. "Why aren't they called grassjumpers because they jump with their back legs?" Jumping over the brook, rope, cracks in the sidewalk.
HOPPING	Putting weight on one foot; elevate by pushing one's self off the floor; landing back on floor on same foot.	"On one foot go up in the air and back to floor on same foot."	"Hopping like a flamingo, puppet on a string." "Hopping sounds like rain on porch, roof, sink faucet dripping."
RUNNING	Transferring weight from one foot to the other while the body is momentarily suspended in air.	"Being in a hurry in the air."	Running like mice; automobile engines; fireman when the siren blows; moles underground. Running to get on the bus; make the train; to catch the elevator; or to catch the ball.
LEAPING	Transferring weight from one leg to other involving elevation and suspension while in the air. Uses more space and force than in running and more coordination.	"Going away up in the air, stretch out from one leg to the other."	Leaping like a dog; a deer; dancers on TV. Leaping over puddles; sidewalk; hurdles; a pile of leaves.
SWINGING	Suspended, pendular, arc-like movement executed by the arms, legs or whole body.	"Going side to side or up and down, or back and forth like swaying." "Moving part of a circle or 'whole' circle."	Swinging like clock pendulum; cow's tail; monkeys in zoo; flags in the wind. Makes me think of a rainbow; bells in churches; cranes digging; trees in bad storm; swinging bridge; swinging on parallel bars.
STRETCHING	Extending and expanding one or more body parts.	"Reaching." "Growing tall or wide."	Stretching like my kite string; clothes hanging on line; crepe paper; a rubber band; worms when I put them on my hook; chewing gum; my Daddy's suspenders.

STRETCHING (continued) and			Bending and stretching like playing the trombone; the policemen telling me to cross the road; Cherokee Indians when they dance.
BENDING	Contracting and flexing one or more body parts.	"Getting little." "Pulling in real small." "Humping up."	Bending like my granddaddy. Bending up like accordion.
PUSHING and	Shoving and thrusting away from the body, using force (pushing also involves a stretch and bend). Exerting force against something which pushes back.	"Getting something out of my way." "Starting the revolving door."	Pushing like animals that use their heads, like goats, elephants and buffalo; rockets going off the pad; crowds of people in subway; my little brother; doll carriage; Christmas shoppers push. Pushing at the floor when we jump—pushing the ball to make it bounce.
PULLING	Drawing or attracting toward a fixed base (the body) using force.	"Bring something toward me that might not want to come."	Pulling like going up in my Grandmother's apple tree. Pulling like a tug-of-war; train pulling a red caboose; pulling up the flag.
TWISTING and	Changing position using some rotation around an axis or center.	"As far as you can go around without moving feet or seat. Head toward you, rest of me away from you."	Twisting like pretzels; corkscrew; licorice sticks. Twisting when I bat a ball; when I mess up my fish line. Turning and twisting like a rope.
TURNING	Revolving completely around a center or base.	"All the way around." "All the way over."	Turning over and under, upside down. Over—forward roll. Turning a screw with a screwdriver; turning like airplane propellers; bicycle wheels; twisters or hurricanes.
*SHAKING	Short, rapid, successive vibrating motion.	"Wiggly," "Quivering," "Shivering movement."	Shaking like jello—when I come out of the water; stuff in my pocket; subway; my loose tooth. I shake when I'm scared like when it thunders or when there is a scarey TV program. Makes me think of milkshakes; harp strings; birds fluffing feathers; my mom shakes the can before she squirts the bugs.
*BOUNCING	Back and forth or up and down motion in quick rhythmic sequences. Rebounding.	"Jiggling." "Going up and down in a hurry." "Bumpy."	Bouncing like a ball; clown in circus, or giggly bubbles in Seven-Up. Bouncing on bedsprings; trampoline; the bus; trucks. Makes me think of flowers on my Aunt's hat when she walks; story of "The Red Balloon."

* Bouncing and shaking are really qualities of pushing and pulling and other basic movements. However, small children have identified these as specific movements. Therefore, they are included here as individual basic movements.

Baltimore Public Schools
Photo, Robert S. Fleming

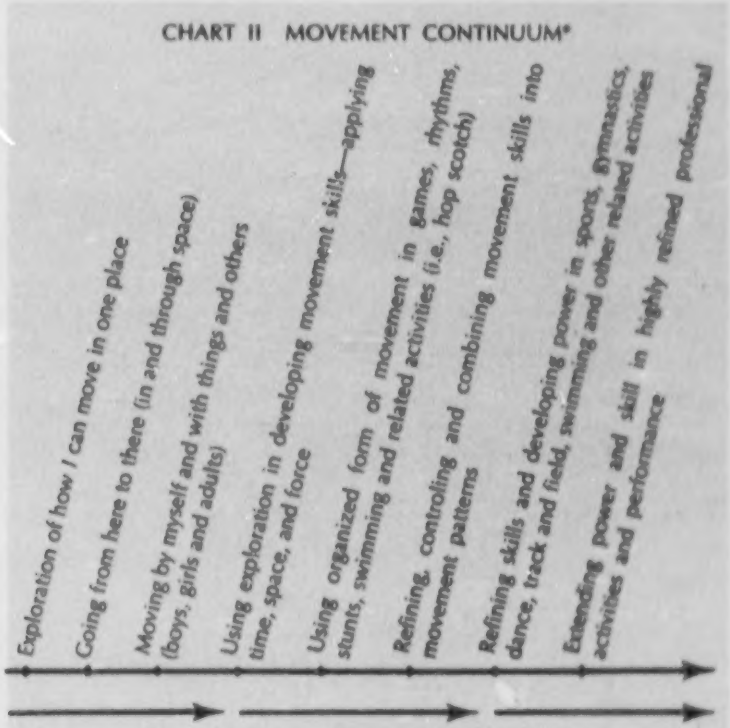
selves, they become more secure and successful with objects and equipment such as tricycles, bicycles, scooters, balls, bats and ropes. Since some children are fearful of these external objects, serious difficulties may arise when they are put into situations before they are ready.

From the combinations of movement skills movement patterns develop as in catching and throwing, batting and running to a base, polkaing with a partner by combining a skip and a slide, skating or swimming.

Combinations of movement skills and patterns are intensified with other concepts as children comprehend such factors as hard and soft, small and large, here to there, fast and slow, velocity and gravity. With opportunity and practice, realizations also come concerning the relationship of time, force and space to *all movement*. This may be another principle of human movement. Such factors become meaningful as children make themselves go faster or slower, forward, backward or around, try to stay in the air, turn over in the air and make themselves light or heavy with or without equipment or with another person.

In the Chart below, "Movement Continuum," the progression of movement skills is shown in terms of a continuum, which illustrates the necessity for an individual to progress through a series of stages in an orderly manner. It is impossible for one to acquire perfection or power in a physical skill unless he has developed proficiency in factors which underlie the proficiency:

CHART II MOVEMENT CONTINUUM*


Exploration of how I can move in one place
Going from here to there (in and through space)
Moving by myself and with things and others (boys, girls and adults)
Using exploration in developing movement skills—applying time, space, and force
Using organized form of movement in games, rhythms, stunts, swimming and related activities (i.e., hop scotch)
Refining, controling and combining movement patterns
Refining skills and developing power in sports, gymnastics, dance, track and field, swimming and other related activities
Extending power and skill in highly refined professional activities and performance

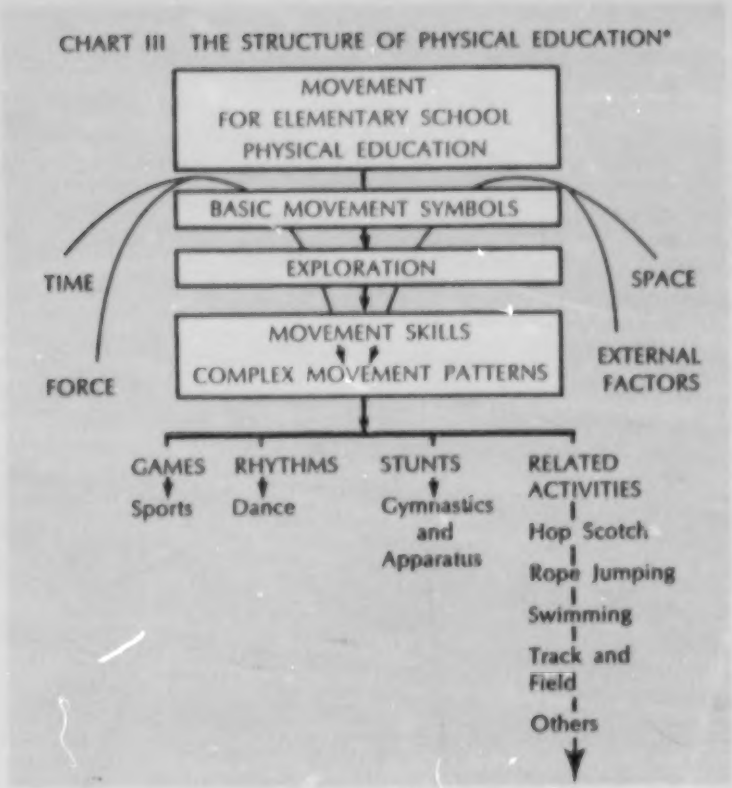
* Developed and demonstrated by Gladys Andrews and Robert S. Fleming, 1967.

Movement Continuum

So often teachers and parents are in a hurry to put children into complex, structured forms of Movement (games, dances or stunts) before they can adequately handle themselves in relation to time, force, or space; external objects; other boys and girls; or before they have had appropriate movement opportunities to express themselves. However, when time is provided for movement exploration and when experiences are planned sequentially, all children when given help and encouragement will have the necessary movement background to participate in organized forms of movement including games, sports, dance, gymnastics and other activities.

In summary, movement is the basis for physical education. An analysis of the various factors related to the discipline are illustrated in Chart III, "The Structure of Physical Education." Note the relationship of basic symbols, exploration, skills and skill patterns to games, rhythms, stunts and related activities.

appropriate movement opportunities to express themselves."
Photo: Robert S. Fleming



If sound, continuous programs are to develop in the elementary schools, it is imperative that Movement and the knowledge of the basic factors therein be brought to the attention and understanding of both classroom and physical education teachers. Concentration on skills or sports for adolescents will fail to achieve goals of competence, since emphasis on learning basic movement skills must begin with very young children, the earlier the better. Every child has a right to this unique form of communication. To move, and to gain in movement, enhances the quality of being alive, of being a child!

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and Vice-President, AAHPER, 1968-69,
and Chairman of Dance Division
AAHPER

* Developed by Gladys Andrews, 1965.

SAFETY EDUCATION— IMPORTANT FACET OF PHYSICAL EDUCATION

Physical education has many facets, one of which is safety. To move correctly is to move safely; but there is more to consider than movement alone; there must also be consideration of other persons and objects and of one's environment.

Safety education may be defined as the learning of those skills which will help one choose wisely when injury to others or to self may occur. Thus, through teaching and good example, many accidents in elementary school physical education can be prevented. All teachers can help their pupils become aware of their own safe living as well as the safety of others by developing students' good attitudes, skills and knowledge. Teaching the feeling of responsibility for others' safety is probably one of the teacher's most difficult and important tasks. A child is naturally self-centered; as a part of his growing up, he should become cognizant of others around him and, in relation to his peers, of the importance of their growing up too. As early as possible the child should learn the value of interaction between people, of the importance each person has for another.

To make safety education more meaningful for the child, the physical education teacher first considers the child: age, sex, ability, fitness, readiness; then plans, noting conditions under which the child will be working. Environment must be taken into consideration:

- indoors, outdoors?
- cold, hot, warm?
- rain, sunshine?
- open spaces, crowded corners?

Photo courtesy San Fernando Valley State College, Northridge, California

- the play area surface: hard surface, turf, dirt, cinders, level, uneven, well drained?
- the equipment and supplies: good, fair, safe, ready to use, plenty, not enough?

Although flexible, systematic plans with long-term goals in mind make it possible to use each teachable moment, *more* than the teachable moment is needed to really educate a child in safety.

Planning for Safety Education

It is the school's responsibility to know its objectives for safety and to inform the public of the school's safety factors and goals. One objective of safety education is to teach children to recognize hazards and to deal with them. Sometimes hazards can be removed; i.e., the piano can be moved from an active play area into the hall, or a bench can be lifted onto the stage away from the playing area. The hazard that cannot be removed can be called to the attention of the children with instruction as to the proper use of that area—staying away, or learning how close they can safely come. Play areas should have definite markings, clearly indicated boundary lines ten to twelve feet away from any obstruction, wall or fence. A child running at top speed will have time to slow down after crossing the finish or boundary line. The area around a window well, for example, should be fenced in for complete protection. If it cannot be completely fenced, a series of bars round the edges will help make it safer so that a child cannot slip or fall into it. Cautionary lines—yellow for slow down quickly, painted twelve feet from the edge and red—stop, do not cross—six feet away, will help children learn quickly what the colors mean and to observe cautions explicitly. Mats hung on protruding walls may save a child from abrasive injury. The best rule is to remove all hazards whenever possible; but it is better still to teach children how to deal with hazards that must remain.

Where new problems arise with new creations and inventions, it is more important than ever to help children develop self reliance, to learn to care for themselves in the varied situations they face daily.

Accident Causes

From research on causation, some of the major causes of accidents are known to be:

- lack of knowledge
- poor skills
- desire before good judgment (a child trying to climb up on a roof to get a ball)
- hazards (should be recognized and children taught how to play safely around them if they can't be removed)
- lack of instruction, of supervision, of leadership
- poor attitudes ("Me first," lack of good manners, disrespect, and poor examples)
- personal factors (lack of sleep, illness, physical handicap)

Safety in Space Indoors

Although working in space is not new to teachers of physical education, this phase of the physical education program is receiving more attention. Teachers, in helping children use space wisely, help them learn to: move in all directions without colliding with another person or object; be responsible for their own movements; know and use the safe forms of locomotion, i.e., running on the balls of the feet with heels off the floor, watching where they are going; listening for sounds around them; being careful not to run directly in front of anyone or across another's line of direction. The child should be taught to use his arms in running and not to flail them around in a thoughtless or useless manner.

Space used must be free from debris, dust, equipment and any clothing that children may have removed. The area should be large enough to allow for exploration and for children to move alone or in a group, and should be well ventilated. Boundary lines should be established. For safe, comfortable performance of the simple exercises to warm up before any strenuous activity, children should be barefoot or in tennis shoes; and sweaters or jackets should be removed.

Although physical education classes are meant to be a time for fun as well as for learning, there is no license for noisiness. Whistling, stomping or shrieking can be dangerous distractions to other children playing or performing, especially for someone working on apparatus.

In planning the program, a teacher should give children daily opportunity for strenuous activity, yet always intersperse a vigorous activity with a more quiet one. For safety, learning how to relax is an important skill, a skill that can be increased through playing such imaginative games as pretending to be rag dolls, a piece of rope, water flowing from a hose or a similar activity in which the body becomes quite limp.

Glendale School, River Hills, Wisconsin
Photo, courtesy Gordon Jensen

Space Plus Equipment and Safety

In considering movement in space with equipment, it is well to remember, while encouraging creativity, that rules are necessary for the safe use of all equipment and that it is imperative that children be helped to understand *reasons* for each. If a rule is not followed the class should be stopped immediately, the rule re-explained and discussed.

All apparatus used for gymnastics, tumbling, climbing and jumping should be thoroughly checked at the beginning of the season, and periodically, for loose bolts or screws, jagged edges, torn mats or worn parts. It is advisable always to have mats under gymnastic equipment and to see that they do not slip when used. In the gymnasium, classes should be instructed to remove all pieces of equipment and supplies not needed that day.

Teacher Reinforces Security

A child who is timid about climbing or heights or who feels insecure on equipment should not be forced into an activity from which he shrinks. A few minutes spent with this child may reveal to the teacher what the fears are or the reasons for his feeling insecure. Often a conference between parents and classroom teachers is encouraging to the child's situation, in that a definite plan for helping him can be worked out. The teacher who works patiently with the child's reluctance can help him overcome his fears.

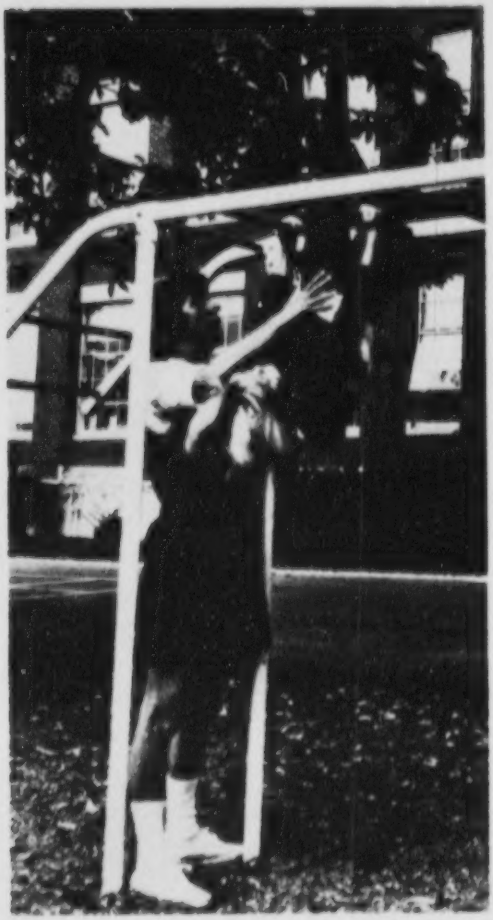
It is good to have a warm-up period before doing strenuous work on equipment, such as gymnastics, tumbling, rope climbing or trampolining. When children know why it is good to accustom the muscles gradually to vigorous exercise, hopefully the warm-up period will become a practice to carry over into physical activities in their adult lives.

Because playgrounds are being used more in after-school hours by persons of all ages, some of whom come with sack lunches to eat between periods of play, there is likely to be a litter problem. A safety committee composed of possibly one teacher and several volunteer pupils might check the area each day to remove hazards, such as scattered bottles, and report all unsafe circumstances and possibly to sweep up loose sand scattered out of the sandbox. The sandbox should be covered when not in use, as loose sand on black-top surface can be slippery.

The practice of assigning definite areas to certain age groups and having these area rules adhered to is a good one. Proper supervision will prevent small children from running into areas where bigger, older children are playing. Enough space between areas so that games can be carried on without overlapping or interference gives further assurance to safe, harmonious, concurrent play activities. Children can learn to enter or cross areas with minimum disruption and maximum courtesy to other players.

Playground equipment should be placed on the perimeter of the play area for easier supervising, with a soft surface underneath for the protection of the children, such as tanbark, sand, turf (artificial or natural) or other commercial products. This equipment, like indoor equipment, must be regularly checked thoroughly for breaks, loose screws, protruding or worn pieces.

When teaching skills on the apparatus, the teacher takes a position where all children can be seen as they use the apparatus. A rule governing the number of children to use one piece of equipment can be determined, but it is important to stress *all* safety rules and review with



Teacher reinforces security
Laboratory School
Millersville State College
Pennsylvania
Photo, courtesy Richard Zerby

children the safe way to approach, climb, drop or leave the equipment. If climbing, the children should not wear gloves or mittens; and it is best to avoid falls by not climbing if equipment or hands are wet.

Safety in Space with Supplies

Supplies are those pieces of expendable equipment such as bats, balls, masks and other safety devices. A child learns early to catch, roll, bounce and throw a ball, but he does not always retrieve it in the safe, correct way. Is he alert for another player? a fence? a street? a wall? The child can be taught the correct way to hold his hands and fingers when catching balls of different sizes. If "fists" are made tightly just before catching a softball, or a similar small ball, then opened to catch the ball, the fingers are more relaxed and the danger of jamming a finger is lessened. The batting team, if properly instructed, will not have to be reminded to wait their turns at a distance to insure safety from being hit by the bat or run into by a fielding player. The catcher should wear protective equipment.

In all games correct use of the body is important. Running quickly, fast starts, fast stops, direction changes, falling correctly, should be learned in practice sessions, with and without supplies. In games such as soccer, volleyball and basketball where fast moving and stopping are essential, these skill practices are necessary to make the games safer and more enjoyable.

By the time a child leaves the elementary school it is to be hoped that he has learned and practices the necessary safety rules and that he is aware of his responsibility to make the world a safer place for others as well as for himself. Hopefully, he has learned that the explorations his love of adventure leads him into will be conducted safely; and that he has learned those physical skills which will make him adept at meeting the growing complexities of his world—more traffic, more outer and less inner space and more people.

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SUGGESTED READING

American Association for Health, Physical Education and Recreation, *School Safety Policies* (Washington, D. C.: The Association).

Yost, Charles Peter, *Teaching Safety in the Elementary School* (Washington, D. C.: American Association for Health, Physical Education and Recreation, 1962).

ENVIRONMENT FOR LEARNING: CLASSROOM, GYMNASIUM AND PLAYGROUND

Research concerned with the educational process tells us much about the nature of the learner, the teacher, and the learning experience. Unfortunately, the function of the learning environment—the classroom—is not as clearly defined. The old saw that "a good teacher can teach anywhere" may contain a semblance of truth, but one must raise the question, "How much more effective would a teacher be in a modern, well-equipped classroom or playground?"

Design, construction and equipment incorporated into the contemporary elementary classroom generally reflect commitment to:

- current learning theory in which there is general recognition of the importance of pupil motivation, involvement and activity
- the broad educational purposes of elementary education
- the variety of approaches to organizing for learning.

Factors in Functional Design

As a consequence, technological developments have evolved that make the modern classroom a marvel of functional design. No longer is the teacher dependent upon predetermined seating arrangements to make best use of existing lighting or room dimensions. Modern architectural designs, state building codes and local ordinances have done much to assure adequate standards for classroom lighting, ventilation, heating and sound pupil health and safety generally.

Today those concerned with good classroom design, in considering the learning tasks of the pupil, will provide an instructional area that reflects recognized needs for:

- flexibility
- areas for large group activities
- areas for small group activities
- access to an area for study and individualized activities
- access to areas for reference materials and resource materials
- areas for the display of materials, projects and units of work
- an area for observation and consultation
- a "teacher's station" with ample space for desk, file cabinet, reference books and materials and other teaching tools
- a situation that will accommodate the use of television and other audiovisual facilities
- a method of intra-building communication
- ample areas for storage of instructional materials

Further, there will be consideration for the teacher's approaches to helping the learner and attempts to provide for the following needs:

- orientation to thinking, studying, discussing
- investigational endeavors—individualized and group
- use of reference books, magazines, papers, materials
- use of basic and supplementary texts
- frequent use of audiovisual facilities and materials
- group-experience orientation
- varied activities, varied timing
- display areas—table and wall
- work stations for each individual learner—desk or table
- work stations for groups of learners—tables, areas

Providing classroom facilities in which both teacher and learner may function effectively, however, is but one facet of the problem of creating an environment in which good learning can take place. The other is dependent upon how skillfully the teacher uses this environment.

Teacher's Use of the Environment

In the continuing quest for improving learning, the teacher brings to bear on the instructional program an array of teaching tools; he attempts to lead the learner and his environment into interaction in ways that should be conducive to good learning. Most teachers realize that the environment within which learning experiences take place should be a relaxed, inviting and happy one where children can find many opportunities for development. In addition to those things associated with the "teaching post," the teacher is probably expected to be able to deal with a variety of mechanical and semimechanical devices that aid in the presentation of the curriculum.

Control of Environment

Teachers have an obligation to control their classroom environment to the extent possible. Heating, ventilation, electrical lighting, sound, color dynamics and room furnishings are all a part of the child's total school environment. To what extent these factors influence learning is somewhat a matter of conjecture. It is quite possible that such room variables as color and design my affect the pupil psychologically, while other factors like heating and lighting may affect him physically.

Physical Education's Contribution to Health

To be concerned about healthful school living is to be concerned with the welfare of each pupil in school. In this regard school personnel must give consideration to both the physiological and the psychological drives of pupils. Not only must there be planning for the kinds of environmental controls mentioned thus far, which help foster good learning, but there must also be provided the kinds of facilities and learning experiences that will contribute to optimum health for each pupil. Of all areas in the curriculum, physical education is probably the one with the greatest potential contribution to this goal.

Classrooms for Physical Education

The gymnasium and the playground are the "classrooms" for physical education. Comments made earlier in the context of a healthy environment in the classroom apply to the gymnasium as well. Proper heating, ventilation, lighting and acoustics are all vital to good learning and health in physical education. Because so many extraneous uses are made of the facility (lunch room, meeting room, auditorium), control of sound transmission is of the utmost importance and should be judged as essential as control of the visual environment.

Safety, too, relates to healthful learning conditions. Although this important area is dealt with at length in the previous article, it may good to reiterate here the teacher's moral and legal responsibility to the safety of children. The presence of lunch tables and benches or folding chairs left in disarray around the gymnasium walls is very much in conflict with the teacher's obligation to provide a safe and healthful learning environment. Lunch tables that fold away into recesses within the wall, or that fold in half and become portable on their own casters, are a boon to the multipurpose room that doubles for both lunchroom and gymnasium. Folding chairs stored in portable carts can be easily rolled out of the way of busy, active children.

Equipment for Physical Education Is a Vital Concern

While physical education is not directly concerned with the height or positioning of desks, chairs, work tables or chalkboards, there are equipment needs that become essential instructional tools for the

teacher. A healthful environment in physical education is one that provides for a wide variety of activity; that minimizes standing around waiting for a turn; that is success-oriented for each pupil. There is no magic formula for the teacher to know how much and what kind of equipment to purchase. This will depend on such factors as: objectives, facilities, budget and curriculum. It is ideal to have one ball for each child as new skills are being learned; it is essential to good learning to have at least one ball for every two or three children. There need not be the same size, color or type of ball for every pupil in the class. The use of different types of equipment for learning the same skill is sound practice, and teachers should not be concerned over the lack of uniformity here. Children, in fact, find this type of learning experience enjoyable. Another technique to gain maximum participation of all pupils is to have one group using all the available equipment specific to the learning task at hand while the rest of the class, organized into other groups, engages in activities not requiring the same equipment.

The Outdoor Classroom

School playgrounds also constitute "environmental problems" for the teacher, especially if they are poorly planned, equipped or supervised. Well-planned play areas serve as additional educational tools for both the classroom teacher and the physical education specialist. They can give purpose, direction and reason to many play experiences. A proper play environment becomes an outdoor classroom offering play "plus"—plus sound learning experiences where children are guided in the development of:

- motor skills essential to good movement fundamentals
- good habits of safety
- acceptable emotional controls for dealing with themselves and others in times of stress or in the attainment of certain goals
- organic strength and vigor
- "Learning to move—and moving to learn"

Because of varied administrative regulations regarding staggered recess periods, teacher playground supervision, and classroom orientation to play areas (room exits, window areas, driveways), it would seem logical in most schools to consider three levels of play areas—kindergarten, primary and intermediate.

These play areas should be specifically planned for the age groups each is to serve and located as close to the classrooms of the children using them as is practical in relationship to classroom windows, noise, traffic and orientation to the total site. Kindergarten and primary areas, especially, ought to be close to their classrooms, to provide for greater supervision and accessibility. Pupil interest and needs for each of these play area levels would determine the kind of play space and equipment necessary.

Black Top Surface with Painted Areas for Court Games
Photo, courtesy Donald Brault

For a healthy outdoor play environment, three types of play areas should be considered:

Turf is necessary for most running, chasing and fleeing activities and in the intermediate grades for modified team games like softball, soccer and touch football.

Apparatus areas for each group are considered a necessity and should provide opportunities for hanging, climbing, jumping and balancing. Those pieces of apparatus having danger potential should be erected upon some sort of cushion material. This can be either sand or tanbark in pits with a minimum depth of 6 inches to insure adequate protection.

An all-weather *black top surface* is considered essential for primary and intermediate grade use. Careful selection of proper court games painted on the black top will give a natural division of play space.

A healthy and safe outdoor environment is one that is planned to:

meet with (and challenge) the emotional as well as the physical needs of the children

provide for the maximum of safety, circulation of traffic around and through the area, progression of play experiences, and ease of supervision

include a variety of apparatus to assure balanced physical and emotional development as well as sustained interest

provide the strenuous activity necessary for maximum growth and development

serve as a laboratory in which children—all children—can "learn by doing."

Equipment for Vital Play

To illustrate what can be done in providing expanding possibilities for playground activities, the following four photographs will bear out the writer's concern for vital equipment.

The Ship

The "ship" as shown in photograph No. 1 is a piece of play equipment developed for use by kindergarten-primary grades and the mentally retarded. It was constructed of poured concrete and discarded concrete culverts. Most of the superstructure was designed with the play needs of children in mind. The sides of the ship (concrete walls) are irregular in height and shaped to provide children of kindergarten-primary age with opportunities to develop balance and jumping skills at all levels of ability. Crawlthrough space appears as elongated portholes, giving the ship a somewhat unrealistic appearance. However, whether the ship appears to be a ship in adult eyes was never of serious consideration in the planning. What was important was that the structure be capable of becoming whatever the children wanted it to be at a given moment. To this end the designer has been successful in developing a piece of play equipment that is continually challenging, exciting and physically demanding for young children.

The Covered Wagon

On another playground (Photo No. 2) the covered wagon is one of several homemade items with a western motif. In this case the theme is "the pioneer." The bed of the wagon and its wheels are authentic. The tumbledown slide, fiberglass roof and the merry-go-round horses were added to complement the children's play experiences on the wagon.

Stockade, Fort or Rocket Ship

Concrete culverts (Photo No. 3) simulating a fort or stockade, are open cylinders 48" in diameter, 6' long, implanted in the ground vertically and providing all sorts of strenuous, creative kinds of play. Holes are chiseled into the concrete at appropriate distances to provide hand-and-toe holds to assist in climbing up and over the top and down inside. On the opposite side of the climbing holes are large, irregularly shaped exits. Again, the equipment can be to each child whatever that child wishes it to be. One day it may be a fort, another an Indian teepee, a rocket ship to outer space or a medieval castle to be stormed.

The Log Fort

The structure (Photo No. 4) was designed to provide kindergarten-primary children with good opportunities to climb, hang, balance and jump. To provide additional motivation the climbing structure was de-

signed as a fort with a lookout tower at the top furnishing the incentive to climb up. The fence-like structure on one side serves literally as a corral in which youngsters might have to contain themselves for certain kinds of play. More importantly, the fence is something for children to work hard at climbing upon. Once there, the less adventurous child may sit the rail and ride it as a horse; or the more skillful may want to stand up and walk the log as far as he can. The fort was constructed of regulation log siding purchased at a local lumber yard and put up by school personnel.

Instructional materials such as these lend themselves, from kindergarten through elementary years, to movement education and self-directed learning in physical education.

The school, functioning as a health-centered agency as well as an education-centered agency, has a responsibility for the welfare of its pupils and, as such, must maintain an environment conducive not only to good learning but to sound health and safety practices. The community through its school board shares this concern in the building and furnishing of schools, and it is the teacher's responsibility to control the environment so that desired health practices may be followed.

BY
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WHERE GOOD PHYSICAL EDUCATION PROGRAMS EXIST

Previous sections of this bulletin have indicated that good physical education programs are characterized by factors of curriculum, facilities and personnel. In each category there are apparent definite needs to be filled in the typical elementary physical education program in schools throughout the country.

Basic Physical Movement Needs

In curriculum we have too long been satisfied that a haphazard assortment of low-organized games and simple rhythms, supplemented by a dash of physical fitness activities, would provide an appropriate program for elementary school boys and girls. It becomes increasingly obvious that the physical education curriculum must be concerned with a sequential program of activities based upon what is known about boys and girls at each developmental level, beginning at the earliest primary grade. Since children do grow and develop according to an orderly sequence, it follows that physical education can be most effective if developmental levels are recognized and children helped to progress from one level to another.

A rather obvious point frequently ignored by those concerned with conducting physical education activities is that physical education should actually and purposefully deal with *movement*. Children are not expected to grasp art, music, or other school subjects naturally and efficiently without some direction; it seems illogical to assume that

efficient, skilled, expressive movement should be expected to develop without instruction. A casual observation of normal adults in various physical activities reveals the many kinds of awkward and inefficient movements that might have been avoided through well-planned programs of movement education in the elementary schools—programs concerned with basic movement, rhythmic movement, sports and gymnastic activities, and the routine actions of everyday life.

Students of growth and development, elementary education authorities, and physical education teachers are agreed upon the need for growing boys and girls to run, jump, chase, dodge, hang, swing and crawl and to test themselves in these and other basic movements. Yet, incredibly, in many modern schools such basic physical needs are apparently overlooked in the construction of gymnasiums, multipurpose rooms and playgrounds, where little provision is made for the kinds of equipment necessary to make such activities possible.

Changes in Playground Equipment

More attention must be given to the laboratories of physical education (fields, gymnasiums, playgrounds) and to the tools of physical education (equipment and supplies). The swings, slides, teeter-totters and merry-go-rounds of yesterday will have to give way to the more useful and creative climbers, stegels, balance beams, vaulting devices, and the many improvised pieces that ingenious teachers are devising.

Qualified Teachers Important to Program

Even more important than curriculum and facilities are the physical education teachers who determine the quality of the elementary program. The men and women who conduct the elementary physical education program need interest, enthusiasm, ability, and specific preparation for the job to be well done. The practice of assigning secondary-level staff members or physical education teachers with only secondary-level preparation to elementary-level responsibilities should be discontinued.

But classroom teachers should not be overlooked when personnel involved with elementary physical education are being considered, for in schools where physical education programs approach their full potential, classroom teachers appreciate the contribution of physical education to the total school program and add their knowledge of specific children to the information available to physical education instructors. Although classroom teachers are not expected to become physical education specialists, their role as teaching specialists is greatly enhanced by participation in regular physical education in-service sessions and in the actual physical education instruction.

Based upon the assumption, then, that good physical education programs exist only as a result of many factors operating simultaneously, several examples of good programs are here offered, along with the reasons for their success. Reference to Wisconsin schools is a result only of the author's familiarity with programs in that state. Exemplary elementary programs are fortunately to be found in increasing numbers in all states.

Special Needs Can Foster Good Programs

In one of the larger cities of Wisconsin the general physical education program has flourished for years in two senior, two junior high schools, and in sixteen elementary schools, where excellent teaching, good facilities, and appropriate equipment for developmental physical education have ensured success. In physical education classes here, waiting for a turn would be considered a waste of valuable time; it is not uncommon to observe children working on a dozen separate stations in one elementary school gymnasium.

When funds became available, a summer program was organized for seventy-five pupils classified as physically deprived because of general coordination difficulties: poor motor skills, gross lack of strength and, in a few cases, mental retardation or emotional problems. Participants recommended for the program by building principals, classroom teachers, nurses, speech therapists and physical education teachers, ranged from kindergarten children to sixth-graders.

The director, two physical education teachers and ten Red Cross volunteers from local high schools provided suitable activities and individual attention for seventy-five pupils every morning for six weeks. At the beginning of the six-week program each child was given a battery of tests to determine his agility, strength, body control, balance, hand-eye coordination and motor skills. A set of objectives was developed for each child and a progress chart used to record test results twice a week.

During the ensuing weeks, planned objectives were surpassed in over 90 per cent of the cases; and some improvement was noted in the performance of all participants.

The success of the program, more evident in the pleased comments of parents and the increased confidence of the students than in the results of objective tests, has assured its continuance as part of the permanent summer curriculum.

New Ideas and Willingness To Experiment

In another elementary school district near Milwaukee, some challenging ideas have been put into action. Primary pupils are assigned to ungraded rooms; half the upper-grade pupils are in combination rooms. Pupils are taught more on the basis of their needs than on a rigid grade placement.

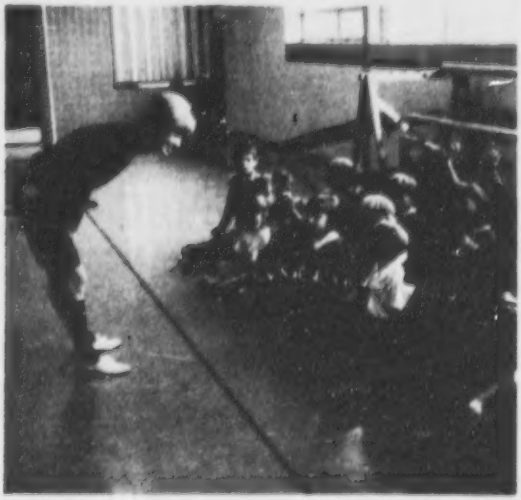
Even at the kindergarten level an experimental class is in operation to ascertain the value of an all-boy kindergarten in countering some maturational advantages that girls seem to have over boys at this level.

In the nongraded physical education classes, age differences of three years are common and differences in size are apparent. The physical education director, a specialist, holds that differences in age are not detrimental to physical education activity. Most activities are conducted on a group or squad basis with older pupils as leaders used to advantage in explaining activities, reading cards on which movement problems are written and in checking the progress of their squad members.

Each class begins with a teacher-class discussion that includes plans for the day and a consideration of the equipment to be used and the safety measures to be followed. The session ends with a review of the day's activity and a brief mention of plans for the next period.

A typical indoor class consists of activities at four stations with groups working on tumbling mats, climbing ropes (seven cotton climbing ropes are in evidence), balance beams, and a stegel. Each squad leader is given a card on which several movement problems are written, which he reads to his group. Individual pupils solve problems each in his own way as the director moves from group to group offering suggestions.

Planning of the outdoor playgrounds has obviously been done with children in mind. Blacktop areas are covered with painted lines, circles, zig-zags, standing broad jump areas and four-square courts. In addition, large colored numerals and a complete alphabet painted across the blacktop area demonstrate the correlation of physical education with



Pre-class Planning with Pupils at Glendale School, River Hills, Wisconsin

classroom activities. A large map of the United States will be added for playground practice of academic skills.

A kindergarten play area, segregated from that of the older children, contains many kinds of imaginative climbers in addition to the painted lines and game areas appropriate to kindergarten use.

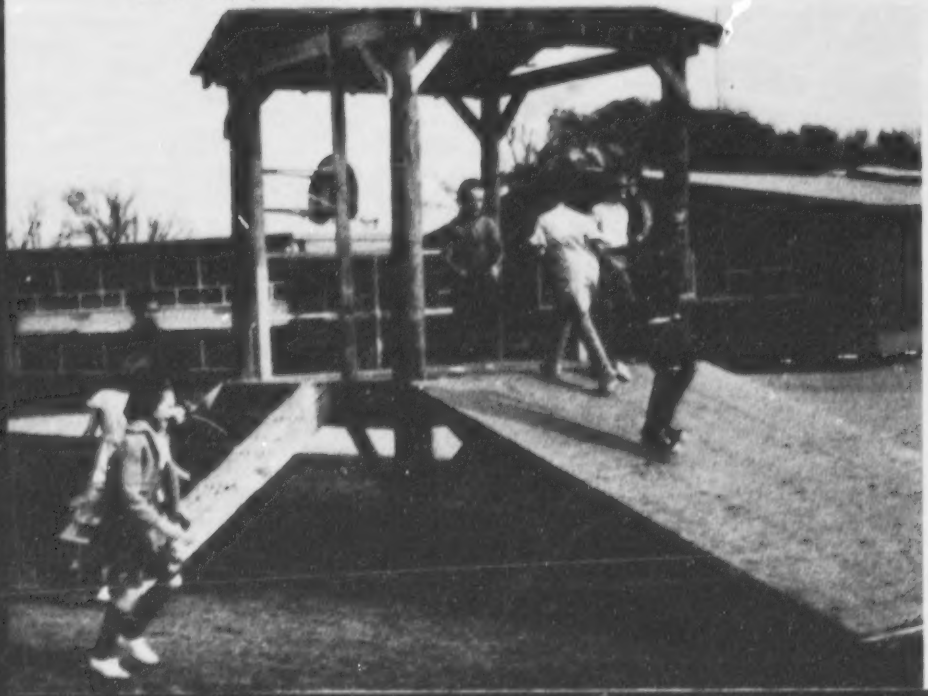
Programs in a Special School

Another outstanding example of a progressive program in physical education is that of a school where retarded childen learn at their own rate from teachers specifically prepared for teaching the retarded child. This school is one of the first in a rural area to recognize and cope with the need for educational services to educable and trainable mentally retarded children.

The school's administrative leaders were quick to recognize the importance of physical education to the pupils; a physical education curriculum committee worked intensively for a number of years establishing guidelines in the development of an appropriate curriculum taught by individual classroom teachers.

In 1966 a grant made possible the employment of a full-time physical education director who with two assistants, a man and a woman, each a qualified physical education teacher, has built the physical education program into one of the most beneficial and satisfying programs of the school.

Home-made Equipment
Walworth County Special School, Wisconsin
Photos, both pages, courtesy Gordon Jensen



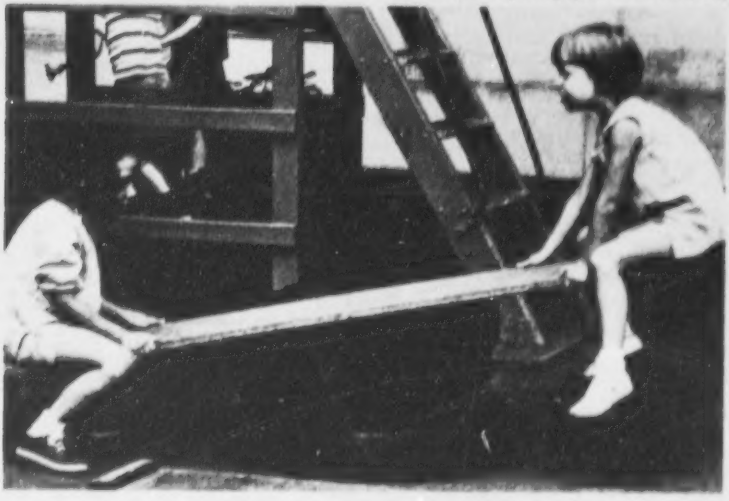
Children are given increased individual attention and are allowed to progress at their own rate. Particular attention is directed toward activities that allow pupils to experience success and improve their all-important self-concept. Teachers guide children patiently through programs of basic movement—rhythmic activities, games, relays, sports and all the other activities common to good programs anywhere—toward eye-hand coordination and development of large muscles.

Since progress in acquiring physical skills is likely to be rather slow, it is necessary to use several methods to help accelerate the motor-learning process. Although individual attention and reduced class size help, director and teachers have discovered that they can sometimes devise their own equipment to fill specific needs. So successful has been the development of this method for increasing learning that the director is preparing a booklet dealing with improvised equipment and supplies for physical education for the mentally retarded. The school industrial arts classes are proud to have produced much of the equipment for their physical education classes.

All the usual activities common to elementary school physical education are present at this special school, plus a strong perceptual-motor emphasis, movement exploration, fitness activities, corrective and remedial exercises, a good intramural program, outdoor education, and swimming when it can be arranged at a neighboring school.

Many curriculum materials, techniques and equipment ideas developed for this special school, it has been recognized, are applicable to general elementary school physical education programs.

Tires of all kinds are valuable physical education tools. Bill Anderson, photographer. New York City



The Creative Teacher and a Good Physical Education Program

The physical education instructor at another Wisconsin public school believes that elementary school physical education ought to challenge children with movement problems they themselves can solve. Pupils in his classes are encouraged to develop body awareness, a sense of movement quality, self-confidence in movement, creativity in movement and, as a result of these, better all-round motor performance.

Classes here are child-oriented; whenever possible, pupils are offered choices of activity; within each activity, variations in performance are encouraged. Pupils make a maximum effort, for achievement does not go unnoticed.

Improvisation and ingenuity have gone into making the most of an ordinary outdoor area that is not spacious. The use of bicycle tires, for example, although not unique here, has been developed to the point where tires have become valuable physical education tools. They are used for teaching basic skills (jumping, running, hopping); special skills (throwing, kicking), for recreational games, for stunts and balances, for combatives, and for simple calisthenics. Lightweight and safe, they can be used both inside and outdoors by the skilled, the unskilled and the handicapped.

A jump board made inexpensively from scrap wood and a door spring has become one of the gymnasium's most popular pieces of apparatus; homemade weight-training equipment suitable for intermediate-grade use has been made by the children themselves.

Child involvement carries through the entire program, including health and first-aid activities, where student projects have provided some of the school's best teaching aids.

Solving a Local Problem

In a small Wisconsin town where approximately 1500 people support a K-8 elementary school of fewer than 300 pupils, school officials, convinced long ago of the necessity for good developmental physical education programs, provided an adequate gymnasium, ample outdoor playground space and equipment, but had a perennial problem in the provision of specialized instruction.

A county-wide curriculum committee was formed, representing schools of similar size, in which university physical education specialists, administrators and classroom teachers were involved in the development of an elementary curriculum guide suitable for semirural schools, where classroom teachers teach some of their own physical education classes.

Later, a certified physical education teacher was engaged for part-time physical education instruction and supervision. An interested male member of the school staff was assigned half-time duties as site director of the physical education program.

Although all children were now receiving periodic instruction by a qualified physical education teacher in activities appropriate for their age group, more activity was needed.

As so often happens, the solution to the problem was discovered in the children themselves. Volunteers, both boys and girls, were enlisted in a leadership training program. The physical education director oriented seventh- and eighth-grade aides in the kinds of low-organized activities deemed appropriate for following up the primary physical education instruction. Each noon thereafter, following lunch, seventh- and eighth-grade leaders took their assigned groups of primary youngsters to the playground and/or gymnasium for a period of vigorous activity in games or skill practice. All the student aides were under the immediate supervision of the physical education supervisor and rotating teams of classroom teachers. As often as activities in the regular physical education classes were changed, meetings were held to familiarize aides with a new series of follow-up activities.

In order to provide added activity for the older students, an intramural period was scheduled during the early afternoon each day. Both boys and girls were involved in the formation of three large "teams" that were in turn subdivided into a variety of activity groups, partially based on skill and interest for competition with other similar groups. Student officers were elected and weekly meetings scheduled at which time student "teams" and their faculty advisers discussed the difficulties, if any, that their teams were experiencing and made whatever adjustments seemed necessary.

In this school officials look forward to the day when they have more full-time physical education instruction. Undoubtedly the activity organization that has worked so well will be largely retained, for the present program has served not only to provide activity but to involve children and teachers in a valuable, cooperative venture.

Summary

The preceding examples will have fulfilled their purpose in this publication if it has been pointed out to the reader's satisfaction that understanding administrators and teachers, well-prepared specialists, sequential curriculum plans, creative methods and techniques, appropriate equipment and facilities, and child involvement, are all necessary where good programs of physical education exist.

BY
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THE NEW LOOK IN ELEMENTARY SCHOOL PHYSICAL EDUCATION*

It is now realized that if we are to make real progress in our schools priority must be given to the elementary and preschool levels for securing the finest kinds of facilities and the best qualified teachers that can be found. Within this focus, there is a nationwide surge of interest in elementary school physical education today and exciting things are happening all over the country.

Interest is evidenced by the increasing demand for specialists as teachers of elementary school physical education or as resource teachers; by the emphasis given to motor activities as part of remedial programs for children with learning difficulties; by the increasing number of teacher preparation institutions interested in providing either a major or special area of concentration in elementary school physical education; and by a general interest of professional people in the contributions that good physical education programs can make to the total development of all children. The emergence of a special terminology to describe the new look in elementary school physical education is another indication. Today we hear such terms as movement education, movement exploration and basic movement to describe this new look.

In the past, many teachers and parents believed that the natural play of children was sufficient activity for growth and development and that

*Adapted from a speech by Margie R. Hanson, NEA Convention, Minneapolis, Minn., Tuesday, July 4, 1967.

by providing a few games, dances or exercises in the school day, a child's need to move and to release energy was satisfied, and that those reasons were the primary justification for a physical education program. Recess and necessary or spontaneous play activity outside of school have often been considered adequate for a child's development.

Changing Sociological Conditions Affect Need

However, changing sociological conditions make mandatory a need today, more than ever before, for more comprehensive physical education programs in the elementary school day. Automation and mechanization reduce the amount of physical activity in an individual's life. At the same time, the population explosion reduces the natural play spaces and even the availability of ground and space for man-made play areas.

Deprivation of this opportunity for natural activity now makes us realize even more the contribution of movement to a child's total development. In experimental programs with disadvantaged children, it has been observed that for the slow learner, the underachiever, the child from the inner city and the child from crowded suburbs, activity is important not only for his physiological growth and development, but also for his social development and the development of his total learning capacity.

We Can Learn from Children

Furthermore, if we really listen to, observe and study children, we soon realize the importance of physical activity in every waking moment of their lives. As we become more knowledgeable about children's needs, we realize that physical education is not a frill or an extra, not something to be done when all the other work is done, but rather something to be done to help get all the rest of the work done! It is a necessary component of the school day, leading toward the total development of children as fully functioning human beings.

Contributions of Physical Education to Total Development

It is now accepted that children need an environment of many sensory and social experiences to facilitate learning. The medium of physical activity is a wonderful way to enrich their lives and to reach them. It is a laboratory for many types of learning. Herein children blessed with good leadership in good programs develop social relationships, learn to value, interact, observe, communicate, and to express themselves through both movement and enriched vocabulary. They recreate and they re-create. They develop new skills which enhance their poise and self-confidence and they acquire concepts such as: hard, fast, slow, up, down, around. They develop skills, attitudes, and interests for a lifetime pursuit of health and happiness thus improving their self-image, thereby becoming fully functioning human beings ready to face other tasks of their daily lives.

Curriculum Trends

Current trends in elementary education indicate an increasing interest in providing a broad physical education program for all children, beginning in nursery school. Significant changes in curriculum are taking place for children where there is good leadership in elementary school physical education.

For years the curriculum has had a limited focus on games, relays, dances and exercises. Gradually, it has been enlarged to be more comprehensive and to include stunts, tumbling, apparatus, track and field, modified sports, and other appropriate activities with particular emphasis on the specialized skills involved in each of the activities.

More recently there has been an attempt to identify core content found in all movement within daily life activities of work, play and the normal routine of living. This content is commonly referred to as basic movement which, when well developed, would enable one to manage the body efficiently in a variety of movement situations, whether walking, running, doing routine chores or participating in leisure time activities.

To develop competence in these basic movements, attention is given to the time, force and flow qualities involved, as well as to helping an individual become aware of the space in which he moves. Specific attention is also given to various movement patterns common to many activities, and lessons can be structured around these specific patterns. They are often categorized into locomotor movements—running, jumping, leaping, etc.; nonlocomotor—bending, pushing, pulling, twisting, etc.; and manipulative patterns of throwing, catching, kicking and striking.

It might well be asked, how would a lesson using this approach to curriculum differ from what is usually taught? In examining the activities of a primary grade class learning to play tag or any other of their favorite running and chasing games, one would find certain components in common, such as moving in a confined space, dodging, making quick stops and changing directions (common to many adult games also). Thus the lesson might have as an objective the development of spatial awareness and the ability to control the body in various locomotor movements.

With these objectives in mind, the physical education instructor poses movement problems that allow a child to discover his ability to move using different patterns of locomotion in the entire space without colliding with others. The scene before one would be a group of children responding with their own ideas, every child moving at the same time, all moving in different directions in various ways, each learning to use his space safely and to the best advantage before playing a game with its carefully defined rules and boundaries. Concepts of space, force, direction and timing are developed from an experience that is applicable to many other activities. Thus, the game becomes the culminating experience rather than the initial experience.

It is typical at the upper level to teach a unit on bowling, another on softball and still another on volleyball with special attention directed to the skills within each game. Study of these activities reveals similar movement patterns in all three games, e.g., the underarm movement is common to the delivery in bowling, the pitch in softball and the serve in volleyball. This movement can be extracted and applied to use in the elementary school program as a generalized experience important to many activities.

In a typical physical education class with the new look there would be at least one ball for every two children. They would be experiencing movements involving swinging, stepping with opposite foot forward, trunk rotation, transferring weight, directing the ball to the partner, before getting into the formalized game itself with its restricting rules and limited opportunities to handle the ball. No longer do teachers wait until it is time to play softball or other highly organized games to teach ball-handling skills. They can be learned through a movement education approach which can be presented to the youngest children when the tasks are appropriately structured for their developmental level.

Now this does not mean that all the usual games and dances are no longer an important part of the elementary school program or that such objectives as development of social and character traits, of specialized sports and dance skills, of fitness, are forgotten, but rather it is believed that this approach to curriculum and method enhances experiences for children and provides them with a broad background for the more specialized programs at the secondary school level.

New Emphasis on Creativity

The new look includes much emphasis on creativity and problem solving. It is compatible with modern theories of learning through discovery, meeting children's needs, allowing them to work at their own rate and level of ability, of total involvement of children in their learning experience and of de-emphasis of highly competitive or threatening situations—all features which focus on the child rather than the activity.

Much of the teaching in the past has been authoritative, formal and void of any opportunity for creativity, but as learning theories became more sophisticated and as more has been learned about children, physical education teachers have responded with programs that more nearly meet the needs of today's child—for adequate growth and development, social skills and enhancement of his total learning.

New Terminology

The most-used terms for the new look in elementary school physical education are *basic movement, movement education,* and *movement exploration.* These are often used interchangeably, and even the experts do not completely agree upon their meanings. However, *basic move-*

ment is emerging as the term to use in identifying the *core content* which when well-developed should enable one to handle oneself well in a variety of movement situations. *Movement exploration* refers to the method of approaching physical education through a *problem-solving* process with emphasis on development of a *generalized ability* to handle the body efficiently. *Movement education* is a broader term used to describe elementary school physical education when it includes the basic movement content and uses the movement exploration method.

Development of Perceptual-Motor Programs

Another interesting development is the tremendous growth of remedial programs known as perceptual-motor programs for underachievers in the classroom. Various groups working with children with learning difficulties are prescribing activities to increase the child's perception; a common prescriptive activity is movement. Most motor activities recommended seem to be those which improve awareness of space, sense of direction, coordination, balance and agility.

The rationale is sound in that, as children learn to move, they will move more and learn more about the world around them; that early motor learnings serve as a base upon which other learnings are built; and that concrete sensory experiences are the bases for conceptualization. However, further study, experimentation and research are needed to identify the activities needed and specific contributions that these activities make to alleviating the difficulties of children with learning problems.

Existing Problems

To provide good elementary school physical education programs, teachers and administrators have several problems to face. These include: a shortage of elementary school physical education teachers; lack of college programs to prepare teachers for this specialty; lack of emphasis in preservice programs of the classroom teachers; insufficient attention to the primary grades; lack of supplies, equipment and facilities; weak curriculum practices; poor teaching methods. Most of these deficiencies may be due to a lack of understanding regarding the contributions that good physical education programs make to children's total learning and development.

What Can Be Done To Upgrade Programs

A teacher, wanting to evaluate his own adequacy and that of his school might put to himself the following questions:

- Do I understand the contribution that physical education makes to total development?
- Do I allow children to work at their own rate, according to their individual needs, at their level?

- Am I providing maximum activity for every child; is it vigorous?
- Is there opportunity for creativity?
- Do we meet daily, with a planned and varied program?
- Have I been to an in-service meeting lately?
- Is the equipment of appropriate size for children?
- Is there enough equipment so no one has long to wait turns?

An administrator might ask himself:

- Do I truly appreciate the contribution that physical education makes to learning?
- Have I provided a situation which allows my teachers to answer "yes" to all the foregoing situations?
- Do I encourage my teachers to do a good job in this key area?
- Do I create a favorable climate?

A teacher preparation department might ask:

- Do we understand all of the needs of children?
- What do we offer the undergraduate classroom teacher to prepare him for this responsibility?
- How do we prepare the physical education major for this opportunity?
- What do we offer in the way of extension and graduate experiences?
- Do we have a staff member who has had experience at the elementary school level?

Summary

We are on the brink of identifying and interpreting the kinds of physical education programs that are of the most value to children now and for their future. More and more physical education teachers will be called on to help develop these programs, but at the same time the cooperation and understanding of classroom teachers and administrators remain important for the promotion of sound programs meaningful to children and worthy of the time in the school day.

Elementary school physical education is far more than "Little Games and Little Dances for Little People." It is more than a free play period or a fitness program or a remedial program or a competitive program or a problem-solving program; it is a meld of all of these elements into a sound meaningful program which makes a far-reaching contribution to the total growth and development of children.

BY
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Boyer, Madeline Haas. *The Teaching of Elementary School Physical Education*. New York: J. Lowell Pratt and Company, 1965.
Provides a teaching program, methods, organization and evaluation that will enable one to develop a relationship between play and education objectives.

Davies, Evelyn A. *The Elementary School Child and His Posture Patterns*. New York: Appleton-Century-Crofts, Inc., 1958.
A concise analysis of the implications of posture patterns in terms of physical growth, physical and emotional health.

Fait, Hollis F. *Physical Education For the Elementary School Child*. Philadelphia, London: W. B. Saunders, 1964.
A source book of information, with current program trends.

Halsey, Elizabeth and Porter, Lorena. *Physical Education For Children*. New York: Holt, Rinehart & Winston, 1963.
Effective methods of developing skills and understandings while stimulating creativity in children. Materials are also presented concerning organizational procedures, evaluation, self-testing activities, games and dance.

Kirchner, Glenn. *Physical Education For Elementary School Children*. Dubuque, Iowa: William C. Brown, 1966.
A comprehensive text presenting the meaning and purpose of elementary school physical education.

Mosston, Muska. *Teaching Physical Education from Command to Discovery*. Columbus, Ohio: Charles E. Merrill Books, Inc., 1966.
A clear and concise discussion of teaching methods and the effects each has on the learner.

Schurr, Evelyn L. *Movement Experiences for Children: Curriculum and Methods for Elementary School Physical Education*. New York: Appleton-Century-Crofts, 1967.
This book provides one of the most comprehensive analyses of fundamental skills and basic sport skills to be found in books written for the elementary school child.

Basic Movement

Barrett, Kate R. *Exploration, A Method for Teaching Movement*. Madison, Wisconsin: College Printing and Typing Co., Inc., 1965.
A manual developed to promote the understandings, terminology and methods of movement exploration.

Billbrough, A. and Jones, P. *Physical Education in the Primary School*. University of London Press, Ltd., Warwick Square, London E. C. 4, 1964.

This book is primarily written for the classroom teacher, containing an interesting comparison of direct and indirect methods of teaching.

Cameron W., and Pleasance, Peggy. *Education in Movement*. Ling Book Shop, 10 Nottingham Place, London W. 1, 1963.
Emphasis placed on the teaching of educational gymnastics including the analysis of movements.

London City Council. *Educational Gymnastics*. London City Council, The County Hall, London, S.E. 1, 1964.
Basic themes in movement education defined with examples of the development of a lesson using time, space, flow and weight as themes.

Mauldon, E. and Layson, J. *Teaching Gymnastics*. London: MacDonald and Evans, 1965.
A practical textbook, providing the essentials of organizing a lesson, including general teaching suggestions.

Mosston, Muska. *Developmental Movement*. Columbus, Ohio: Charles E. Merrill Books, Inc., 1965.
The concepts of movement designed to achieve total physical development.

Pallett, Doreen G. *Modern Educational Gymnastics*. Pergamon Press, Inc., 122 E. 55th Street, New York, 1965.
This book contains Laban's basic principles of movement and their application to gymnastics.

Randall, Marjorie. *Basic Movement*. G. Bell and Sons, Ltd., York House, Portugal Street, London, W.C. 2, 1963.
Discussion of movement themes using partner work, observation, and apparatus as a point of introduction.

Dance

Hayes, Elizabeth R. *An Introduction to the Teaching of Dance*. New York: The Ronald Press, 1964.
A text designed to demonstrate an understanding and develop a mastery of movement fundamentals.

Murray, Ruth L. *Dance in Elementary Education*. N.Y.: Harper, 1963.
A practical aid to teachers of dance and for children.

Russell, Joan. *Creative Dance in the Primary School*. London: MacDonald and Evans Ltd., 1965.
Written for students and teachers who wish to introduce creative dance in the elementary school.

Stuart, Frances R. and Ludlam, John S. *Rhythmic Activities* Series I, II, and III. Minneapolis: Burgers Publishing Company, 1963.
The series is a useful guide including dances and singing game opportunities for children through rhythm.

Most of the English publications are available from the Ling Book Shop, 10 Nottingham Place, London W. 1, England.

BY
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SELECTED FILMS
FOR ELEMENTARY SCHOOL PHYSICAL EDUCATION

MOVEMENT EXPLORATION—Sound/color, 20 minutes, 1967. Available Documentary Films, 1217 Trout Gulch Road, Aptos, California 95003. Rental, $20 first day, $10 each additional day, plus return postage and insurance. Sale, $185.

Designed for K-6 teachers and teachers-in-training, this film includes a wide range of activities involving primary and elementary children, such as locomotor activities, uses for apparatus and equipment and problem solving.

MOVEMENT EDUCATION IN PHYSICAL EDUCATION—20', b/w, 1967, Rental—$25, Sale—$145. Available—Hayes Kruger, Louise Duffy School, 95 Westminster Drive, West Hartford, Connecticut.

Narration in question-answer form by two men teachers from a school which has been focusing on a movement education program. Provides much information on a variety of activities from K-6. The film demonstrates the methodology of the problem-solving approach, emphasizes the importance of a well-structured environment, and discusses the relationship to good traditional programing in physical education.

AND SO THEY MOVE—20', b/w, 1965. Available from Audio-Visual Center, Michigan State University, East Lansing, Michigan 48824.

Many practical and meaningful activities on fundamental movement experiences for physically handicapped elementary school children are presented with accompanying theoretical narration on the value of the activities.

MOVEMENT EDUCATION—30', b/w, May 1967. (Pilot film) Inquire Audio-Visual Dept., Northern Illinois University, DeKalb, Illinois 60115.

A documentary film on the need for children to move and to learn to move well which includes delightful pictures of children in natural outdoor activities followed by a view of an experimental indoor program.

MOVEMENT EDUCATION—a series of four b/w sound films varying in length from eight to seventeen minutes, produced 1961-1965. Available for sale and rental from the Audiovisual Center, Division of Extension and University Services, University of Iowa, Iowa City, Iowa.

Movement Education in Physical Education; Time and Space Awareness; Guided Exploration; The Problem-Solving Technique.

VIGOROUS PHYSICAL FITNESS ACTIVITIES (1964)—13½ min., 16mm, Color and B & W. Purchase: President's Council on Physical Fitness, Washington, D.C. Color, $55; B & W, $30. Loan prints available from five State Education Department and State Health Department film libraries.

". . . shows how to get maximum participation in the physical activity period through proper use of time, equipment, and facilities . . ."

READINESS—THE FOURTH R (1963)—27½ min., 16mm, color, sound. Athletic Institute. Purchase: The Athletic Institute, Merchandise Mart, Room 805, Chicago, Illinois. $170. Rental: Service charge of $4.00 plus shipping charges both ways from your nearest branch of Ideal Pictures.

". . . dramatizes the place of physical education in the space age school curriculum and features the astronaut John Glenn in a few sequences . . ."

PHYSICAL EDUCATION IN ELEM. SCHOOLS (1963)—16mm, 20 min., color. Available: Stuart Finley, 6926 Mansfield Road, Falls Church, Virginia. $200. ". . . aspects of the physical education program for kindergarten through the elementary grades . . . effective for use in training of teachers, in-service work, and parents and educational meetings."

WHY EXERCISE? (1965)—14 min., 16mm, color, sound. By Earl L. Wallis and Gene A. Logan. Purchase: Associated Film Services, 3419 Magnolia Boulevard, Burbank, California. $152. Rental: also Associated Film Services $54.
". . . conveys ideas about the value of muscular activity . . . demonstrates types of activities which develop factors of strength, endurance, and flexibility . . . geared to the understanding of the upper elementary school child . . ."

BASIC MOVEMENT EDUCATION IN ENGLAND—18 min., sound, B & W. Produced by Elizabeth A. Ludwig, assisted by Michigan Audio-Visual Educ. Center. Available from: Univ. of Michigan Audio-Visual Educ. Center, 720 East Huron Street, Ann Arbor, Michigan. Rental: $4.25; Purchase, $85. Describes movement education from primary grades through teacher training.

SELECTED PERIODICALS

1. Allenbaugh, Naomi. "Learning About Movement," *The National Education Association Journal*, March 1967, p. 48.
2. Editors. "Experimental Clinic in Elementary School Physical Education," *Journal Health, Physical Education, Recreation*, March 1967, p. 24.
3. Howard, Shirley. "The Movement Education Approach to Teaching in English Elementary Schools," *The Journal of Health, Physical Education, Recreation*, January 1967, p. 31.
4. Ludwig, Elizabeth A., "Toward an Understanding of Basic Movement Education in the Elementary Schools," *Journal of Health, Physical Education, Recreation*, March 1968, p. 26.
5. Smith, Hope M. "Creative Expression and Physical Education," *The Journal of Health, Physical Education, Recreation*, May-June 1962, p. 38.
6. ———. "Motor Activity and Perceptual Development: Some Implications for Physical Educators," *Journal of Health, Physical Education, Recreation*, February 1968, p. 28.
7. Tanner, Patricia W. "Creativity and Physical Education," *The Ohio Athlete*, September 1965.
8. Torrance, E. Paul. "Seven Guides to Creativity," *Journal of Health, Physical Education, Recreation*, April 1965.

Compiled by
AMERICAN ASSOCIATION
FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION
Washington, D. C.

Other ACEI Publications

BULLETINS

Bits & Pieces: Imaginative Uses for Children's Learning—20-A. Teachers, Head Start experts, parents demonstrate uses of finds, leftovers, and giveaways to increase children's skills and learning. 72pp. $1.25.

Children and Today's World—19-A. Scholarly, reflective articles by 7 authorities in different disciplines who have looked at children in light of their own special knowledge. 68pp. $1.25.

Children and TV: Television's Impact on the Child—21-A. Educators, teachers, parents, a psychologist, nationally known authorities contribute articles from many points of view on television's impact on children. Illustrated with photographs and imaginative drawings. 62pp. $1.25.

Early Childhood: Crucial Years for Learning—17-A. Selected articles from CHILDHOOD EDUCATION emphasizing importance of establishing early patterns. Play, language, discipline, reading, continuous learning, love, readiness, pressures. 92pp. $1.25.

Housing for Early Childhood Education: Centers for Growing and Learning — 22-A. Educators, architects, school administrators discuss interaction of program and facilities in planning, building anew or remodeling early childhood learning centers. 84pp. $1.50.

How Do Your Children Grow?—103. Child growth and development facts illustrated with home, school, community examples; continuity in learning. 32pp. 75¢.

Toward Better Kindergartens — 18-A. Chairman of ACEI Kindergarten Committee and 9 educators discuss kindergarten teachers' responsibilities; priorities in early childhood education; interaction of children, parents, teachers; kindergarten facilities; language arts; self-selection and self-direction. 64pp. $1.25.

Young Children and Science—12-A. Developing desirable attitudes and behaviors in 2-8's; gaining knowledge. For teachers and parents. Ill. 56pp. $1.25.

LEAFLETS

Basic Propositions for Early Childhood Education—1. Individual differences; beginning years; responsibilities of teachers, parents, administrators. 12pp. 25¢ ea.; 10 copies, $2.

Guide to Children's Magazines, Newspapers, Reference Books—8. 1968 Revision. Annotated list of children's magazines, newspapers, reference books. For parents and teachers. 8pp. 10¢ ea.; 25 copies, $2.

Young Deprived Children and Their Educational Needs — 3. By Barbara Biber. Reprinted from CHILDHOOD EDUCATION, Sept. and Oct. 1967. 16pp. 25¢ ea.; 10 copies, $2.

PORTFOLIOS

Nursery—1 75¢

Kindergarten—2 75¢

Primary School Portfolio—5. Revised and rewritten by 1966-68 Primary Education Committee. New concepts in teaching and learning. Suggested books for primary classroom; professional reading list. 12 leaflets. $1.25.

Transitional Years: Middle School Portfolio — 4. Revised by 1966-68 Intermediate Education Committee. Many changes in concepts and understanding of middle school child reflected in 14 new leaflets. $1.25.

The above publications may be ordered directly from

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A complete publications list with membership information will be sent upon request. (Orders amounting to less than $2 cannot be billed. Include check or money order payable to ACEI; stamps not accepted.)

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